

Risk Assessment and Mitigation - A Practicum

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De Anza College

Workforce

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A Practicum

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Program Page



De Anza College sits in the heart of Silicon Valley, where innovation and opportunity are part of daily life, and also has one of the highest costs of living in the country. For our students, that makes every dollar count, and the price of a textbook can be the difference between staying enrolled or dropping a class. Our Zero Textbook Cost (ZTC) program closes that gap by giving students full access to high-quality, faculty-created course materials at no cost from the first day of class.

De Anza is proud of its diverse student community, and we hold our ZTC materials to the same standard of excellence that defines the college. Faculty across departments write, adapt, and review these resources themselves, keeping them accurate, current, and grounded in the perspectives of the students who use them, with accessibility and inclusive design built in from the start.

This program reflects the time and care our faculty invest in their students. If you have questions, feedback, or come across any issues with a ZTC resource, contact De Anza College's ZTC Grants Coordinator, [Shagun Kaur](#).

Learn more about [De Anza ZTC Program](#) [www.deanza.edu/academic-services/oer/]

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Accessibility Statement

Accessibility

De Anza College is dedicated to creating learning materials that are accessible and benefit all students. Our materials follow the Web Content Accessibility Guidelines (WCAG) 2.1 Level AA. Our authors and contracted accessibility specialists checked all resources using this ASCCC OERI checklist, the accessibility tool in LibreTexts, WAVE, JAWS, and other more detailed checks for complex materials such as interactive components.

We selected LibreTexts as our preferred platform because of its [commitment to accessibility](#). In addition to the platform's inherent accessibility, we collaborated with the LibreTexts team to fix any accessibility issues we found.

Our Accessibility Review Process

Accessibility was built into the resource as it was written. This resource went through the following stages of review:

1. **Template check.** The project coordinator and instructional designers checked the first chapter for accessibility as a model to ensure later chapters meet accessibility standards.
2. **Progress checks.** The manuscript was checked at approximately 40%, 60%, and 80% completion to catch and correct accessibility issues in production.
3. **Specialist review.** Once the manuscript was complete, an accessibility expert conducted an accessibility check.
4. **Remediation.** The author and the project manager who conducted the earlier progress checks worked together to remediate the issues identified by the accessibility expert.
5. **Final check.** The resource underwent another full check by the accessibility expert before the book was deemed ready for publication.

This process combines ongoing checks during writing with a final specialist review, so issues are caught early and confirmed fixed before publication.

Report an Accessibility Problem

We are always looking for ways to make our resources more accessible. If you run into a barrier while using this resource, please let us know so we can look into it. When you [contact us](#), it helps to include:

- The name of the resource
- The location of the problem (a web address or page/chapter description)
- A description of the problem you encountered
- The device, browser, and any assistive technology you were using (e.g., Windows 11, Google Chrome, JAWS screen reader)

Contact us: [De Anza ZTC team](#)

This statement was last updated August 2026

This resource was project-managed by **Shagun Kaur**, overseeing scope, budget, and schedule; stakeholder coordination via monthly meetings; training and platform support (LibreTexts, troubleshooting, technical support); QA/accessibility check scheduling; and licensing and copyright governance.

A Note on Known Limitations

No accessibility check is perfect. We've made a genuine, sustained effort to catch and fix issues throughout the writing and review process described above, but some barriers may remain, especially in complex or interactive content. We'd rather be upfront about that than claim a standard of perfection we can't guarantee.

AI Use

All substantive content in Risk Assessment and Mitigation – A Practicum was developed by the human author based on professional experience, subject-matter expertise, original instructional materials, and teaching practice. Artificial intelligence tools were used under the author's direction as editing and instructional-production aids.

AI Tools Used

The primary AI tool used in the development of this book was ChatGPT by OpenAI.

How AI Was Used

AI assisted with editing and refining author-developed content; improving clarity, organization, consistency, and presentation; and supporting the formatting and refinement of instructional materials such as scenarios, student instructions, templates, examples, reflection questions, and assessment materials.

The author established the subject matter, instructional approach, learning objectives, project context, and pedagogical direction of the book.

Guardrails

AI use was limited to author-created materials, materials the author had permission to use, and appropriately licensed Open Educational Resources (OER). AI was not used to independently reproduce or substitute copyrighted textbook content.

All AI-assisted material was reviewed, revised as appropriate, and approved by the author before publication. AI output was not treated as an authoritative source or as a substitute for subject-matter expertise or professional judgment. The author retained full editorial control and responsibility for the accuracy, instructional design, and final content of the book.

About the Book

The Risk Practicum

CIS 95C: Risk Assessment and Mitigation – A Practicum is a hands-on, scenario-based learning experience that transforms students from passive participants into active risk leaders. Rather than teaching risk through abstract theory or simplified definitions, this book immerses learners in a dynamic simulation—one grounded in realistic constraints, emotional complexity, and cross-functional decision-making.

Throughout this practicum, students step into the role of an embedded risk analyst at **Self-Managed Diabetic Care Inc. (SMDC)**, a fictional but highly realistic healthcare startup developing a data dashboard for diabetes self-management. Through twelve milestone scenarios, students must navigate uncertainty, analyze systems and signals, collaborate across stakeholders, and make tough decisions under pressure.

Who This Book Is For

This OER textbook is designed for:

- College students studying risk management, systems design, or project-based leadership
- Early career professionals looking to sharpen their decision-making, communication, and analysis skills
- Educators seeking authentic, assessment-aligned materials for team-based or independent coursework
- Healthtech and product management learners exploring risk beyond compliance
- Anyone ready to learn how people, systems, and uncertainty collide in real-world projects

Whether you're new to risk or looking to develop deeper fluency, this book gives you space to practice, reflect, and grow.

What Makes This Book Different

A Complete, Real-World Simulation

You're not just analyzing risk—you're embedded in it. From regulatory ambiguity to emotional impact, from stakeholder silence to technical failure, the SMDC simulation creates conditions that mirror those found in high-stakes environments like healthcare, fintech, and social impact tech.

Emotional and Behavioral Dimensions

You'll engage not just with logic and tools—but with **emotion, hesitation, and silence**. Through models like **SEW (Sensation-Emotion-Want)** and frameworks for team culture and memory, you'll explore how people actually react to uncertainty.

Problem-Based Learning (PBL)

Each milestone begins with a memo from a stakeholder and ends in a high-impact deliverable. Along the way, you'll use real tools—Risk Breakdown Structures, matrices, decision trees, contingency plans—and learn to ask the right questions, not just fill in forms.

Role-Centered and Team-Aware

Whether working individually or in a team, students are asked to adopt the perspective of clinicians, engineers, PMs, legal advisors, and patient advocates. This trains both **technical fluency** and **role empathy**—skills essential to 21st-century project work.

Reflection and Leadership Integration

Each chapter includes structured prompts that ask:

- What did you feel?
- What did you assume?
- What changed your mind?
- What would you do differently next time?

Risk management becomes a **leadership development experience**.

How to Use This Book

Each milestone module follows a consistent, student-friendly structure:

- **Scenario Brief**
 - A memo from a stakeholder launches the problem context
- **Plan of Attack**
 - Step-by-step guidance for how to approach the deliverable
- **What You Will Submit**
 - Clear expectations for outputs: tools, charts, syntheses, and decisions
- **Learning Resources**
 - Templates, risk strategy guides, collaboration tools, and reflection frames
- **Reflection Questions**
 - Prompts to explore mindset, emotion, teamwork, and professional growth
- **Instructor Notes**
 - Evaluation criteria, sample answers, grading suggestions
- This format supports:
 - Individual and group-based learning
 - In-person, hybrid, or online instruction
 - Graded coursework, bootcamps, or professional workshops

Pedagogical Vision

This book was built on the belief that:

- **Risk is not just a technical concept—it's a human one**
- **Leadership is built through uncertainty, not around it**
- **Clear thinking under pressure can be taught and practiced**
- **People don't grow from perfect conditions—they grow from challenge**

Students aren't just learning how to fill out a matrix—they're learning how to **listen to discomfort, translate signals across silos, and create structures for resilience**.

By the end, students will have:

- Designed professional risk tools
- Facilitated stakeholder collaboration
- Practiced systems thinking
- Built a comprehensive portfolio of risk decisions
- Found their voice as risk-aware collaborators and leaders

This book is dedicated

Dr. Ray Bareiss

My mentor, teacher, and guide.

Dr. Bareiss fundamentally shaped the way I think, lead, teach, and solve problems. His passion for learning, his gift for making complexity accessible, and his unwavering belief in the potential of his students have stayed with me long after our time together.

He taught me:

- to question deeply,
- to design thoughtfully,
- to communicate clearly,
- to teach with purpose, and
- to lead with integrity.

His influence lives in this book, in every effort to help students grow not just as project managers, but as thoughtful, capable professionals.

Although he passed away in January 2024, his impact continues through the lives and work of those he inspired. I am honored to carry forward a small piece of what he shared with me.

Thank you, Dr. Bareiss.

Your lessons continue to guide this journey.

Welcome Letter

Welcome to CIS 95C: Risk Assessment and Mitigation – A Practicum

Dear Students,

Welcome to **CIS 95C: Risk Assessment and Mitigation – A Practicum**. I'm thrilled to have you join this journey—not just as learners of risk, but as future leaders in uncertain, high-stakes environments.

This isn't a traditional course, and this isn't a traditional textbook.

You won't be memorizing definitions or circling multiple-choice answers. Instead, you'll step inside the operations of a simulated healthcare startup, **Self-Managed Diabetic Care Inc. (SMDC)**, and work across twelve milestone scenarios as part of an embedded risk team.

In each milestone, you'll receive a memo from a project stakeholder—a clinician, a product manager, a compliance officer, or a patient advocate—and be asked to:

- Frame the problem
- Analyze uncertainty
- Collaborate across roles
- Design risk tools
- Justify your recommendations
- Reflect on what you learned

You'll use professional frameworks like risk breakdown structures, impact matrices, control maps, and decision trees—but what matters most is how you think, how you reflect, and how you communicate when the right answer isn't obvious.

This course is built around a simple but powerful idea:

You cannot avoid risk, but you can learn to lead through it.

What to Expect

Over the next few weeks, you'll learn to:

- Map risk across teams, systems, and emotional signals
- Evaluate control tradeoffs and communicate tough decisions
- Build habits of collaboration, reflection, and strategic thinking
- See ambiguity not as a threat—but as a space for clarity and leadership

You'll work through the practicum at your own pace or in a team (depending on course format), using the workbook to track your insights and assemble a **final portfolio** of risk deliverables—your first real step into professional-grade risk analysis.

What You'll Need

All core materials are embedded in this OER textbook and workbook. You'll also need:

- A risk journal or digital note-taking space
- A copy of the SMDC scenario documents and tool templates
- A willingness to think deeply, speak clearly, and reflect honestly

No special software or experience is required—just curiosity, integrity, and the desire to grow.

Final Thought

You might be thinking, “But I’m not a risk expert yet.”

That’s the point. None of us are when we start.

The goal of this practicum is not to make you perfect at risk tools—it’s to help you find your risk **voice**, your **judgment**, and your ability to act when others freeze.

By the time we reach Milestone 12, I hope you’ll look back and realize:

You don’t just understand risk. You’ve practiced it. You’ve led through it. And you’re ready to do it again.

Let’s get started.

Warmly,
Bob Singh

How to use this book?

Enter The Practicum

CIS 95C: Risk Assessment and Mitigation – A Practicum is not a textbook you simply read. It's a problem-solving environment, a professional simulator, and a leadership development tool—designed to immerse you in the challenges and responsibilities of managing risk in real-world projects.

Whether you are working independently, as part of a team, or in a classroom environment, this book supports **active engagement, structured practice, and critical reflection**. Each module, called a **milestone**, places you in the role of an embedded risk analyst at **Self-Managed Diabetic Care Inc. (SMDC)**—a startup building a complex, patient-facing technology.

The Structure of Each Milestone

Each of the 12 milestones in this book follows a consistent 7-part structure to guide you through risk identification, analysis, control, and reflection:

- 1. Scenario Brief**
A realistic memo or request from a SMDC stakeholder frames the context and urgency of the risk issue at hand. This helps simulate real-world problem-solving, where clarity and action are expected under time pressure.
- 2. Plan of Attack**
A step-by-step planning guide that scaffolds your approach. It shows how to break down the problem, choose a tool or technique, and structure your thinking—especially when faced with ambiguity.
- 3. What You Will Submit**
A clear, professional-grade deliverable. This may be a risk breakdown structure (RBS), impact matrix, control plan, decision tree, synthesis memo, or capstone presentation.
- 4. Learning Resources**
You'll be provided with sample templates, toolkits, visual guides, and examples. These resources support your learning but do not replace your decision-making. The thinking—and judgment—is yours.
- 5. Reflection Questions and Lessons Learned**
After completing each milestone, you'll reflect on your assumptions, decisions, emotions, and takeaways. Risk leadership is not just about tools—it's about growth.
- 6. Submission Checklist and Final Assembly**
This helps ensure your work is complete, organized, professional, and ready for instructor or peer review. Think of this step as simulating a real submission to your project sponsor or PMO.
- 7. "What I Learned" Journal Box**
At the end of each milestone, you'll capture your most valuable personal insight—so you can track your evolution as a risk-aware leader.

Using the Book Independently or In Teams

This book is flexible and supports multiple learning modes:

Format	How to Approach
Independent Learners	Treat each milestone like a real assignment. Use the workbook to organize your deliverables and reflections. Track your growth over time.
Team-Based Learners	Assign rotating roles (Risk Lead, Stakeholder Analyst, Communicator). Collaborate on deliverables and reflect on team dynamics and tradeoffs.
Classroom Use	Instructors may use milestones for weekly assignments, discussions, or peer reviews. Your instructor will guide how work is submitted and reviewed.

What You'll Need to Participate

- A copy of the Student Workbook (print or digital)
- Access to editable templates (RBS, Matrix, Tree, etc.)
- A risk journal (optional, but recommended)
- Basic tools: Google Docs, Sheets, or other collaborative software
- An open mind, willingness to reflect, and readiness to lead under uncertainty

The Learning Mindset

This book is designed to teach you to think like a risk strategist, not just a checklist user. You will learn to:

- Analyze incomplete data
- Understand silence and misalignment as signals
- Prioritize conflicting concerns
- Collaborate across disciplines
- Reflect honestly and iteratively

The goal is not to be perfect. The goal is to **practice structured clarity** under pressure.

Final Tip: Treat Every Milestone Like a Leadership Opportunity

Every risk you analyze, every tool you build, every reflection you write—it's all part of developing your professional identity. Don't skip the hard parts. Don't avoid the messy questions. They're where real growth happens.

Let this book be more than a course guide. Let it be your **first playbook for leading through uncertainty**.

How was this book created?

The Design Philosophy behind the Practicum

A behind-the-scenes look at the process, philosophy, and purpose that shaped CIS 95C: Risk Assessment and Mitigation – A Practicum

The Problem This Book Set Out to Solve

Most risk management textbooks follow the same predictable pattern:
Define terms. Explain the PMBOK. Offer tools. Present case studies. Quiz students. Move on.

What they often fail to do is ask:

- What does risk **feel** like in real project settings?
- How do people **act** when uncertainty shows up—not in a diagram, but in a deadline?
- What habits, silences, assumptions, and power dynamics shape what risks are noticed, discussed, or ignored?

The inspiration for this book emerged from years of teaching project-based courses where students could **fill out a risk matrix** but struggled to **speak up in ambiguous group situations, notice tension in communication, or surface risks when no one else had**. Something was missing.

That missing piece was not more technical tools—it was **situated practice** in uncertain, collaborative, emotionally real environments.

The Book's Design Process

CIS 95C: Risk Assessment and Mitigation – A Practicum was built through iterative, student-informed instructional design. Its development followed the same principles it teaches:

Risk practice steps and their instructional design parallels

Risk Practice	Instructional Parallel
Identify the unknowns	What causes students to disengage from risk content?
Perform root cause analysis	Why do traditional tools fail to develop confidence?
Build controls	Create milestone-based scenarios and support tools
Monitor and adjust	Revise based on feedback, friction, and reflection

Key design goals included:

- Teaching students to **identify, structure, and communicate risk** across systems and silos
- Building emotional fluency through the **SEW Model (Sensation-Emotion-Want)**
- Embedding **conflict, tradeoffs, and misalignment** into scenarios—not just technical risks
- Providing tools students could **use in real interviews, teams, and jobs**
- Encouraging **leadership behaviors**—not just deliverables

Why SMDC? A Case Worth Learning From

The case of **Self-Managed Diabetic Care Inc. (SMDC)** was selected for its **high relevance, inherent complexity, and ethical stakes**.

Diabetes is one of the most data-heavy, self-managed chronic illnesses in the world. Patients are expected to manage inputs

(blood sugar, insulin, food, stress), interpret metrics, and act safely—**often alone**.

This makes diabetes not just a clinical or engineering problem—but a **human systems problem**. One where:

- Confusion becomes risk
- Silence becomes risk
- Overload becomes risk
- Trust—or the loss of it—becomes a signal of systemic failure

SMDC was designed to reflect a startup trying to solve this problem—without full control, perfect information, or time to waste. Students step inside that environment and are asked to **lead**, with structure but no script.

Why a Milestone-Based Practicum?

Each of the twelve **milestones** in this book simulates a real deliverable, role, or risk dilemma:

- Milestone 1 starts with planning meetings and a blank RBS
- Midpoint modules introduce stakeholder misalignment and patient harm
- Late-stage milestones simulate decisions under pressure and contingency planning
- The capstone challenges students to integrate across time, risk categories, and emotional maturity

Every milestone is:

- Scenario-launched (real memo, real stakes)
- Tool-driven (students apply risk frameworks)
- Reflection-rich (growth mindset and awareness are embedded)

This structure mirrors how risk plays out in the real world—**nonlinear, cross-functional**, and often emotionally charged.

How Students and Educators Helped Build It

This book was not created in isolation. It emerged from:

- Direct classroom testing across multiple terms
- Feedback from students working in business, health, and engineering programs
- Instructor experience across industry (project, program, and software management)
- Workshops with educators and PD facilitators to test usability, pacing, and scaffolding
- Conversations with those who've seen risk ignored—until it was too late

Refinements were made based on:

- When students skipped reflection prompts
- Where team tension created deeper discussion
- Which tools students revisited and reused later
- How instructors adapted materials for time-constrained or team-based formats

Why This Is an Open Educational Resource

This book is published as an OER because:

- High-impact, workplace-relevant education should be **free and accessible**
- Instructors should be empowered to **adapt, remix, and evolve** content
- Students deserve tools that meet them where they are—not just checkboxes to complete

Open access ensures that this book can continue growing, evolving, and integrating new voices, industries, and case contexts—without gatekeeping.

The Bigger Purpose

At its heart, this book is about more than risk tools. It's about teaching people to:

- Notice when things feel “off”
- Speak with clarity under pressure
- Translate ambiguity into aligned action
- Protect trust—not just deliverables
- Lead with humility when outcomes are uncertain

It teaches **what to do when no one knows what to do**—which is where real leadership begins.

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Motivational Message for the first day of class

First Day Message: What You're Really Here to Learn

Welcome to CIS 95C. Before we open the first milestone, I want to tell you something that might surprise you:

This class isn't really about risk management.

It's about what happens **when things don't go as planned**.

It's about how people communicate—or don't.

It's about what we see, what we miss, and what we're afraid to say out loud.

It's about silence in meetings, tension between teams, friction in feedback.

It's about what we do when no one has the perfect answer.

And most importantly:

It's about how you lead, decide, listen, and grow when clarity doesn't come easy.

In this course, you'll learn how to:

- Use industry-grade tools to map risk
- Design controls that protect real people
- Prioritize when every option has tradeoffs
- Write memos that drive action
- Build habits of leadership grounded in humility and clarity

But even more than that, you'll learn:

- To trust your judgment
- To sit with discomfort
- To work through misalignment
- To recognize that **risk isn't the exception**—it's the normal state of high-stakes work

And that's a good thing.

Because if you can lead when things are uncertain, you'll be trusted when it matters most.

What I Hope You Leave With

I hope this course makes you:

- Think more clearly
- Reflect more deeply
- Speak more courageously
- Lead more intentionally

This is your space to practice—not perfection, but growth.

So take the risk. Raise the question. Reframe the problem.

We're not just here to study risk.

We're here to become the kind of people who **help others navigate it**.

Welcome to the practicum. Let's begin.

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About the Author

About Bob Singh

Bob Singh is a project management educator and practitioner dedicated to helping students build real-world leadership skills through hands-on, scenario-based learning. With decades of experience managing complex technical projects, Bob designs learning environments where students practice communication, decision-making, risk analysis, and vendor management exactly as they occur in industry. His mission is simple: to prepare the next generation of project managers to lead with clarity, confidence, and integrity.

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AI Use in Course Development – Transparency & Standards

During early idea generation and drafting of course pages, we used ChatGPT as a supportive tool not as a substitute for human expertise. Specifically:

- The AI's role was strictly initial drafting, not final content production.
- Every output was then thoroughly reviewed, edited, and revised by the course authors to ensure pedagogical quality, accuracy, and alignment with learning goals.

Copyright & Fair Use Considerations

We aligned with evolving IP policy frameworks, especially insights from the U.S. Copyright Office:

- The [Office's Part 3 report on AI model Links to an external site.](#) training highlights the importance of fair use analysis and restricts reliance on generative AI when it could replicate copyrighted works—our use was limited to non-protected, openly licensed materials.
- This cautious approach is consistent with [guidanceLinks to an external site.](#) that encourages transformative use, transparency, and limiting output that could inadvertently mirror protected content.

Licensing statement for this course

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1: FOUNDATIONS FOR SUCCESS- HOW TO NAVIGATE THIS BOOK

Introduction: How to Use This Book and Why It's Different

This is not a textbook you will read once and shelve. This is a book you will **work inside of**—milestone by milestone, decision by decision, reflection by reflection.

At its heart, *CIS 95C: Risk Assessment and Mitigation – A Practicum* is a learning environment built for **practice**, not passive consumption. It does not begin with definitions. It begins with a question:

What will you do when uncertainty shows up—and others are waiting on you to lead?

Most courses treat risk as an abstract concept: something to define, rate, and move past. This book treats risk as a **living system**—a pattern of behaviors, signals, constraints, and decisions unfolding over time. A system that demands both tools and mindset. Structure and judgment. Clarity and courage.

You'll be stepping into a fictional—but highly realistic—startup called **Self-Managed Diabetic Care Inc. (SMDC)**, where a team of engineers, clinicians, and business leaders are launching a patient-facing health dashboard. Each week, you'll receive a memo from a stakeholder outlining a concern, challenge, or turning point.

Your job? Not just to analyze the risk.

But to **structure it. Communicate it. Plan for it. Justify your actions. And reflect on your impact.**

Why This Book Was Built the Way It Was

This book was created to solve a specific problem: students were learning how to fill out risk matrices—but not how to lead when things got messy.

It simulates the reality that:

- Risks emerge without announcement.
- Risks are shaped by people's fears, roles, incentives, and silences.
- Tools are necessary—but not sufficient—without reflection, communication, and trust.

That's why each chapter is called a **milestone**, not a lecture. You'll build things. Try things. Fix things. Write things you'd actually send in a workplace. You'll be given guidance, but no guaranteed path. Just like in real risk work.

How the Book Is Structured

This book contains three parts:

1. **Part I: Foundations** – Introduces you to the mindset and core pillars of risk management. You'll learn how risk differs from constraints, how it lives across time and systems, and what it means to think like a risk leader.
2. **Part II: Milestones 1–12** – The heart of the practicum. These scenario-based modules simulate real deliverables, each structured around a memo, planning guide, deliverable, reflection, and checklist. They're designed to build a complete portfolio and a leadership identity.
3. **Part III: Reflection, Extension, and Integration** – Where it all comes together. You'll analyze risk culture, explore cross-milestone patterns, and (optionally) write a risk white paper or portfolio capstone.

This progression is intentional: **tools** → **decisions** → **culture** → **identity**.

Your Role as a Learner

You are not just a student in this course. You are:

- A risk strategist
- A systems thinker
- A communicator
- A stakeholder listener
- A team member or leader in training

Whether working solo or in a team, your job is to **notice what others miss, name what others hesitate to say, and create clarity where there's confusion.**

Risk work is never neutral. It's emotional. It's political. It's structural. It's human.
This book helps you work across all of those levels.

Final Thought

By the end of this course, you won't just be able to define a risk. You'll be able to **frame it, explain it, plan around it, design for it, and—most importantly—lead through it.**

That's what makes this book different.

Now turn the page. Your practicum begins here.

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1.1: Preface

Welcome to CIS 95C: Risk Assessment and Mitigation – A Practicum

Welcome to *CIS 95C: Risk Assessment and Mitigation – A Practicum*, an immersive, hands-on course designed to help you think, communicate, and lead like a risk-aware project professional.

This book is not a collection of definitions or static theory. It is a **practicum**—a structured learning journey built around the real-time simulation of a high-stakes, high-uncertainty project. In this course, you will not simply study risk management; you will actively practice it through a curated series of milestone tasks, collaborative scenarios, and personal reflections.

Whether you're pursuing a certificate in project management, building toward a business or technology degree, or gaining professional tools to lead cross-functional teams, this book has been written to equip you with practical, relevant, and industry-aligned capabilities.

Why Risk Management Matters

In today's world, projects fail not because teams lack motivation or technical skills, but because they underestimate complexity, ignore early warnings, or fail to communicate risks clearly and consistently. Project risk management is the discipline that changes that.

At its core, **risk management is about leadership**. It's about being the person in the room who asks the hard questions before it's too late. It's about seeing around corners, identifying patterns, designing safeguards, and making decisions when the road ahead is unclear.

This book will help you:

- Understand how risk impacts scope, time, cost, quality, and team dynamics
- Apply risk identification and prioritization tools in real-world scenarios
- Use both qualitative and quantitative methods to evaluate potential threats and opportunities
- Create risk registers, impact matrices, decision trees, and checklists that are used in professional practice
- Strengthen your ability to collaborate, facilitate, and communicate under uncertainty

What Makes This Book Different

What you are holding is not a textbook in the traditional sense—it is a **living case study**.

You'll spend this course working inside a simulated company called **Self-Managed Diabetic Care Inc. (SMDC)**—a fictional but realistic health-tech startup developing a data platform for Type 1 and Type 2 diabetes management.

SMDC is not a safe, clean case study. It's complex. It has constraints. It has risk baked into every decision—technical, legal, clinical, organizational, and financial. That's what makes it ideal for training your mind as a risk manager.

Throughout the course, you will encounter evolving challenges that mirror the lifecycle of a real project. Each **milestone module** you complete will ask you to use a different risk tool or framework. You will evaluate tradeoffs. You will justify recommendations. You may even change your mind as new data emerges.

Built for Problem-Based Learning

This course is grounded in the principles of **Problem-Based Learning (PBL)**. You'll begin each module not with lectures or formulas, but with a **problem to solve**—a realistic scenario requiring thoughtful analysis, decision-making, and communication.

In this model:

- **You are the problem-solver**—not just the learner
- You'll develop solutions that are informed, not perfect
- You'll work both **independently and collaboratively**, just as you would in a professional environment
- You'll reflect on your process, decision logic, and team dynamics—because these matter just as much as the final answer

You will also receive **learning scaffolds**: templates, examples, checklists, and feedback structures that help you progress without prescribing your thinking. This is not a multiple-choice course. This is a leadership laboratory.

What Success Looks Like

Success in this course is not about knowing everything up front. It's about:

- Being willing to ask questions before offering solutions
- Engaging fully with the scenario, even when it's ambiguous
- Listening actively in teams and contributing with clarity
- Applying structured thinking to messy, human-centered situations
- Building a portfolio of risk artifacts you can use professionally

Risk managers are not perfect—they're practiced. They don't predict the future—they prepare for it. That's what you'll learn to do here.

A Note on Tools and Flexibility

This book can be used by:

- Students working in **teams** through a collaborative practicum
- **Individual learners** working asynchronously or self-paced
- **Instructors or facilitators** seeking real-world, scenario-based content for project risk education

Each milestone is modular, and the content is flexible enough to support hybrid learning, flipped classrooms, remote learning, or in-person instruction.

You'll work with widely accessible tools (Google Drive, Docs, Sheets, or Microsoft Office) and will not require any proprietary software.

Final Words

Risk is not something to fear. It is something to **understand, name, and manage with purpose**. Whether you're managing a product launch, planning a nonprofit initiative, or navigating a healthcare technology deployment, the ability to think clearly about risk will set you apart.

This book is your training ground. Your team is your lab. Your reflections are your compass. And your growth will not come from memorizing definitions—but from making decisions under complexity and learning how to lead others through it.

Welcome to the practicum. Let's begin.

1.2: How to Use This Book

This is not a textbook you read cover to cover and highlight for definitions. It's a **leadership simulator, a problem-solving environment, and a practical lab space**—disguised as a book.

Whether you're completing this practicum as part of a certificate program, working independently to sharpen your risk management toolkit, or teaching from it in a classroom, this book was designed to be **modular, flexible, and immediately applicable**. Each section builds toward something bigger—not just knowledge, but capability.

How the Book Is Organized

This book is divided into three parts:

Part I: Foundations

This section introduces the **core concepts and mental frameworks** of risk management. You'll begin by exploring what risk is—and what it isn't—alongside its relationship to constraints, decision-making, and uncertainty. You'll also be introduced to the five core dimensions of project management (Scope, Time, Cost, Quality, Team) and how risk interacts with each of them.

You'll meet the **Self-Managed Diabetic Care Inc. (SMDC)** case study, a simulated startup that provides the scenario basis for all of the milestone work ahead.

Foundational chapters include:

- *Understanding Risk in Practice*
- *The SMDC Case Study: Diabetes, Data, and Complexity*

These chapters set the tone, tools, and context for everything you'll experience in the practicum. Read them closely.

Part II: Risk Practicum – Milestones 1 TO 12

This is the **core of the course** and your primary workspace.

Here, you'll engage with 12 milestone modules—each structured around a **real-world risk scenario** inside SMDC. These aren't chapters to read passively. Each milestone simulates an active project task requiring analysis, documentation, and reflection.

Every milestone follows the same seven-stage structure:

1. **Scenario Briefing**

A short narrative, memo, or prompt from a stakeholder inside SMDC introduces a high-context problem that demands your response. This may come from a clinician, engineer, executive, or regulatory advisor. Your job is to read, interpret, and activate.

2. **Action Strategy**

A step-by-step guide to help you approach the scenario. It scaffolds your thinking, introduces the risk tool or technique to be used, and outlines how to organize your process—whether working solo or in a team.

3. **Your Deliverable**

Here you'll find detailed instructions for what you must produce: a diagram, register, plan, matrix, memo, or synthesis document. Each one mirrors a type of artifact used in real project environments.

4. **Toolkits and Templates**

Each milestone includes practical resources: editable templates, diagrams, case data, examples, and tool walkthroughs. These are designed to support—not replace—your thinking.

5. **Critical Reflection**

This is where deeper learning happens. You'll be prompted to reflect on your decision-making, what surprised you, what risks you didn't initially see, and how the process challenged your thinking.

6. **Quality Control Review**

Before submitting your deliverable, you'll complete a checklist to verify structure, completeness, clarity, formatting, and logic. This simulates professional readiness checks before presentation.

7. **Final Wrap-Up and Submission**

You'll finalize your work, attach any required reflections, and submit according to instructor or course guidelines. This mirrors a real project handoff—where your document must stand on its own.

By the time you've completed all 12 milestones, you will have a **risk management portfolio** filled with applied artifacts, insights, and deliverables that demonstrate your ability to lead in complex environments.

Part III: Reflection, Extension, and Integration

Once you've completed the simulation, this final section helps you zoom out and synthesize what you've learned.

You'll explore:

- The SEW Model (Sensation–Emotion–Want) for human-centered risk framing
- Tools for building organizational memory and control culture
- A capstone reflection module, where you'll revisit key decisions and document your personal growth across the practicum

This is where you consolidate not just tools—but **identity** as a risk-aware contributor, teammate, or leader.

Who This Book Is For

This book was written to be adaptable across multiple learning formats:

Recommended engagement approaches for different learner types using the practicum

Learner Type	How to Engage
Team-Based Students	Work collaboratively through each milestone. Assign roles (PM, SRM, Communicator), rotate them, and coordinate through shared folders and schedules. Use scenario briefings to facilitate live discussions and role-play.
Independent Learners	Treat each milestone as a professional simulation. Work through Action Strategies at your own pace. Use the Risk Journal, Toolkits, and Reflection prompts to guide analysis and self-evaluation.
Instructors	Use each milestone as a stand-alone lab, module, or multi-week assignment. Customize deliverables and checklists. Incorporate milestones into flipped classrooms, online learning, or leadership workshops.

Technical Tools You'll Need

You'll use the same tools used by real-world project teams:

- **Google Docs or Microsoft Word** – for writing reflections, stakeholder memos, and strategy summaries
- **Google Sheets or Excel** – for developing matrices, registers, and cost models
- **Slides (optional)** – for milestone presentations or team synthesis
- **Google Drive or shared folders** – for storing and organizing drafts, deliverables, and templates
- **Communication tools (optional)** – such as Discord, Slack, Teams, or LMS discussion boards for teams or class coordination

No paid software is required. All templates and examples are included or linked inside the book.

How to Track Your Progress

You are encouraged to:

- Maintain a Risk Journal—a physical or digital notebook to capture takeaways, diagrams, decisions, and reflections
- Use the Quality Control Review checklists in each milestone to stay organized and polished
- Save your completed work in a Milestone Portfolio—a final folder that can be used for class presentation, career interviews, or internships

Your instructor may also provide **grading rubrics, deadlines, and check-in schedules** depending on how the course is delivered.

Final Tip: Don't Skip the Critical Reflections

The most powerful moments of learning in this course will not come while building your impact matrix—they will come **after**, when you stop to reflect on what your analysis revealed, what you missed, and what you would do differently next time.

These reflection prompts are not filler. They are where **problem-solving becomes leadership**.

1.3: Overview

Welcome to the Risk Management Frontier

This book is about far more than identifying what could go wrong. It's about developing the tools, mindset, language, and collaborative intelligence to lead **when uncertainty is part of the plan**.

CIS 95C: Risk Assessment and Mitigation – A Practicum is the third course in the project management sequence at De Anza College. It builds directly on foundational concepts introduced in **CIS 95A (Project Planning and Control)** and connects with the capstone project management courses in the series (CIS 95D–L). While CIS 95A teaches students how to build a project roadmap, this course teaches students how to **protect that roadmap from real-world volatility**.

You will learn not only to identify risk, but also to understand how it interacts with stakeholder values, team performance, technical dependencies, and external forces beyond your control.

What This Book Is About

This book is a structured, scenario-based practicum that simulates the risk management responsibilities inside a live, high-stakes, mission-driven project. It is grounded in two core elements:

1. **The Risk Lifecycle** – A progression from risk identification to analysis, planning, response, and control
2. **The SMDC Simulation** – A richly detailed, startup-based case study focused on a real-world healthcare innovation challenge

Through this dual structure, students are guided through a full range of risk management techniques and decision-making tools—including:

- Qualitative and quantitative analysis
- Risk breakdown structures
- Checklists, SWOTs, Fishbone Diagrams, and Decision Trees
- Contingency planning and control strategies
- Cross-stakeholder modeling and mitigation tradeoffs

This book was designed to replicate what professional risk managers and project leads do in real projects—not only in large organizations, but especially in lean, resource-constrained environments like **startups, nonprofits, or mission-driven teams** where every decision matters and failure has consequences.

Why Risk Management Is a Core Leadership Skill

In the modern workforce, risk is not just an operational concern—it is a strategic one. Teams that do not identify and engage with risk early often:

- Overspend on rework
- Miss deadlines or quality targets
- Lose stakeholder trust
- Burn out team members or leadership
- Compromise mission-critical outcomes

Yet teams that do manage risk effectively can:

- Surface opportunities for innovation
- Align faster with stakeholder expectations
- Prevent cascading failures
- Build reputational capital and trust
- Create a culture of foresight and adaptability

The goal of this course is to prepare you to be that kind of leader.

A Realistic, Human-Centered Project Environment

Throughout this practicum, you will be working within the simulation of **Self-Managed Diabetic Care Inc. (SMDC)**—a fictional health-tech startup building a dashboard and data repository to help people with Type 1 and Type 2 diabetes better manage their health in real time.

SMDC is a carefully crafted learning environment with:

- Competing stakeholder perspectives
- Budget and timeline constraints
- Technical integration challenges
- Regulatory ambiguity
- Human safety concerns
- Public perception risks
- Partnership and data privacy dilemmas

It reflects the kinds of projects you may one day work on—or lead.

You will face risks involving **technology, safety, regulation, marketing, equity, and operational viability**. You'll be asked to evaluate not only what might go wrong, but also what it would **cost to respond**—and who bears the impact.

What You Will Learn to Do

This book and course are designed to help you build **practical fluency** in the key tasks of project risk management. By the end, you will be able to:

- **Identify and structure risks** using professional tools (e.g., RBS, Risk Registers)
- **Assess risks** both qualitatively (via probability-impact matrices) and quantitatively (via expected monetary value, decision trees, etc.)
- **Communicate risk** clearly across stakeholders with different levels of technical knowledge
- **Design and prioritize response strategies**, including mitigation, avoidance, transfer, acceptance, and enhancement
- **Track, update, and reflect on risks** over the lifecycle of a project
- **Integrate risk awareness** into broader project planning and execution cycles
- **Lead or contribute meaningfully to a risk-aware team environment**

Whether you're planning a product launch, running a startup, joining a consulting firm, or leading a community initiative—these skills will make you more prepared, more trusted, and more resilient.

Built for Application, Not Memorization

This book is built for **learning by doing**. It uses an applied model with milestone-based learning—meaning every major concept is introduced, practiced, and reinforced through:

- A realistic scenario
- A step-by-step guide
- A concrete deliverable
- A structured reflection process

You'll learn the tools **in the context of a living case**. You'll engage in conversations, tradeoffs, and team dynamics that reflect what professionals face—not what's printed in a glossary.

You will also learn **how to learn** as a team, building not only your personal risk management skills, but your collaborative and communication competencies as well.

Designed for Accessibility and Flexibility

Whether you are:

- A **student** working in a team as part of a practicum cohort
- An **independent learner** using this as a self-paced professional development resource
- An **instructor** adapting the material into a custom course shell
- A **team leader** using the milestone tasks as real team training

This book has been designed to **support flexible use** without sacrificing instructional rigor. It includes:

- Fully developed templates and examples
- Open-ended reflection and team debrief prompts
- Guidance for both individual and collaborative work
- A milestone portfolio that can double as a **project risk portfolio sample**

What Makes This Practicum Unique

Feature and Description

Feature	Description
Scenario-based learning	Every concept is tied to a real-world decision or dilemma
Team or solo flexibility	Designed to work for group or independent learners
Health-tech startup case study	Grounded in a data-driven, human-impact environment
Cross-functional thinking	Encourages systems thinking across engineering, clinical, and business domains
Reflection-driven	Emphasizes metacognition, judgment, and lessons learned

Ready to Begin

If you've ever asked:

- "What if this goes wrong?"
- "What's the backup plan?"
- "Who needs to know about this risk?"
- "What could we do now to avoid future pain?"

Then you're already thinking like a risk-aware leader.

This book will give you the tools to answer those questions with clarity, confidence, and structure.

Welcome to the practicum. Your first challenge awaits.

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1.4: Problem-Based Learning

A Shift from Memorization to Action

This course is built on the foundation of **Problem-Based Learning (PBL)**—a student-centered instructional approach where you learn by actively engaging with real-world problems before being taught all the “answers.” Rather than following a traditional lecture-then-application model, PBL places you in realistic, high-stakes situations where **your thinking, questioning, decision-making, and collaboration drive the learning experience.**

You begin each milestone not with a theory to memorize, but with a scenario that demands a response. You are expected to analyze, organize, communicate, and act—with partial information, evolving constraints, and real consequences (simulated, of course). This is exactly how real project teams experience risk.

Why PBL Works for Risk Management

Risk management is not a static discipline. It requires making decisions under uncertainty, facilitating alignment among stakeholders, evaluating tradeoffs, and continuously adapting to changing environments. These are not skills that can be learned from reading alone—they are **practiced skills**, built through repeated exposure to complex, messy, human-centered challenges.

That’s where PBL excels.

In this course:

- You will not be given perfect information up front.
- You will be expected to collaborate, negotiate, and adjust.
- You will learn the tools of risk management by using them in a variety of decision environments.

This mirrors the real world, where risk managers don’t simply apply textbook techniques—they interpret context, ask strategic questions, and help teams move forward despite uncertainty.

What a PBL Milestone Looks Like

Each of the 12 milestone modules in this practicum is framed around a real-world scenario inside the SMDC case study. These scenarios are designed to create cognitive friction—forcing you to sort, prioritize, and reason through risk-related decisions.

You will always receive:

- A **stakeholder memo** that sets the stage and creates urgency
- A **step-by-step guide** to help you organize your approach
- A **defined deliverable** to complete (such as a risk register, SWOT matrix, or fishbone diagram)
- A **set of reflection questions** to help you process your experience and deepen your learning

This structure is consistent across all milestones so that once you learn the format, you can focus your energy on the thinking and collaboration—not on figuring out what’s expected.

Your Role in a PBL Environment

In Problem-Based Learning, you are not a passive student. You are an active **risk analyst, collaborator, facilitator**, and **decision-maker**. Whether working individually or in a team, your learning is shaped by what you **do**, not just what you read.

This model rewards:

- Asking good questions
- Working through confusion with persistence

- Reflecting honestly on what worked—and what didn't
- Supporting your peers by contributing insight, structure, or clarity

You may encounter uncertainty, disagreement, or incomplete data. That's not a failure—that's the point. Learning how to navigate those moments is the essence of professional risk practice.

What You'll Gain from PBL

By the end of this course, you will not only have a portfolio of risk deliverables, but also a practiced approach to uncertainty. You will know how to:

- Start analysis from a blank page
- Lead conversations around ambiguity
- Justify recommendations using evidence and structure
- Reflect on your own thinking to improve your future decisions
- And perhaps most importantly, you will develop a **confidence that doesn't come from having all the answers, but from having worked through problems that didn't have obvious ones.**

Why PBL Supports Equity and Inclusion

PBL levels the playing field. It values the **process of thinking** as much as the final product. In this model, success does not hinge on rote recall or textbook phrasing—it comes from curiosity, effort, and team contribution. Students from all backgrounds bring unique strengths to the table: pattern recognition, people skills, strategic questions, lived experience, and creativity.

This course honors those strengths by creating learning environments where **everyone contributes**, and everyone learns from one another.

Ready to begin the journey? Turn the page and let your problem-solving mind take the lead.

1.5: Your Role

From Student to Risk Professional-in-Training

In this practicum, you are not simply a student completing assignments. You are stepping into the role of a **risk analyst and decision-support strategist** embedded within a simulated, mission-driven project team. Your job is to help your organization navigate uncertainty, anticipate obstacles, and design thoughtful, structured responses to threats and opportunities that could impact project success.

You will act as if you are a professional working inside a growing health-tech company. That company is **Self-Managed Diabetic Care Inc. (SMDC)**, and it is relying on your clarity, analysis, communication, and leadership.

Your role is not passive. You will be reading, writing, modeling, reflecting, and—if working in a team—collaborating, presenting, and iterating with others. This is a **working role**, with deliverables that simulate the documents, conversations, and decisions required of real-world risk professionals.

What You Are Responsible For

Whether you are working independently or as part of a team, your responsibilities fall into five domains:

1. **Understanding the Project Context**

You must learn the landscape in which SMDC operates—its mission, goals, stakeholders, and constraints. This includes understanding its technical ambitions, regulatory challenges, patient-centered design requirements, and financial limitations.

2. **Identifying and Structuring Risk**

You will be responsible for surfacing potential risks using formal tools such as Risk Breakdown Structures (RBS), impact matrices, and SWOT analyses. You must organize your findings in ways that can be communicated to stakeholders and updated over time.

3. **Analyzing and Prioritizing Risks**

Your role requires you to assess risk likelihood and impact, evaluate dependencies, explore cascading effects, and use both qualitative and quantitative techniques to support decision-making. You will be asked not just to label risks, but to **rank them**, interpret them, and explain your reasoning.

4. **Designing Mitigation and Response Plans**

You will be responsible for proposing controls, identifying contingency plans, exploring tradeoffs, and documenting your recommendations. You'll also consider the cost of mitigation, residual risks, and who is best positioned to own the response.

5. **Communicating Clearly and Thoughtfully**

In all deliverables, you will be expected to write, present, or format your work as if it were intended for a real decision-making audience. This includes structuring your analysis for clarity, labeling artifacts correctly, and making your assumptions explicit. Your communication should enable decision-makers—not confuse them.

If You Are Working in a Team

In a collaborative setting, your role expands. You are no longer just a contributor—you are part of a functioning team of professionals working toward a shared outcome. To succeed in this environment, you will need to:

- Take ownership of specific tasks while coordinating with others
- Rotate or share roles like Project Manager (PM), Senior Risk Manager (SRM), Communicator, or Analyst
- Participate in planning, debriefing, and feedback loops
- Maintain professionalism, respect, and follow-through in all interactions

Your team is your training ground for real-world collaboration. How well you communicate, follow up, listen, and adapt will directly

affect the quality of your deliverables—and your learning.

If You Are Working Independently

As an individual learner, you are the analyst, the documenter, the planner, and the communicator. You must self-direct your process, manage your time, and document your thinking with precision. Your risk journal, checklists, and milestone submissions become the record of your professional process.

You are encouraged to treat this solo path with the same seriousness and structure you would bring to a client project or consulting engagement. Every submission is a representation of your ability to think clearly and act responsibly under uncertainty.

What You Are Not Expected to Know—Yet

This course is built around learning by doing. You are not expected to:

- Know all tools before you begin
- Get everything right on the first try
- Avoid making assumptions or errors in judgment

Instead, you are expected to:

- Engage seriously and persistently
- Seek clarity when confused
- Revisit and revise your thinking when needed
- Reflect honestly on what you learn from each challenge

This course rewards **structured exploration**, not perfection.

Your Leadership Starts Here

Risk management is not just about identifying problems. It's about **preventing harm, protecting people, and enabling progress**. That's what leaders do.

Every milestone, deliverable, and reflection in this course is a chance to practice the skills that build trust: foresight, humility, precision, and care. If you take your role seriously, you will graduate from this course not only with stronger project management skills, but with a clearer sense of how to lead when outcomes matter and certainty is elusive.

Welcome to your role. Your organization needs your insight—and your courage.

1.6: Grading and Assessment Overview

Clarity, Equity, and Learning Through Practice

Assessment in this course is designed not to reward perfection, but to recognize **professional growth, structured thinking, and consistent engagement with real-world problem solving**. This practicum is not about testing what you can memorize—it is about supporting the development of your ability to manage complexity, communicate risk clearly, and apply tools that help teams and organizations make informed decisions.

All grading structures used in this course are built to be:

- **Transparent** – Students always know what is being assessed and why
- **Structured** – Deliverables follow a consistent format with clear rubrics
- **Equitable** – Multiple modes of learning are respected, including writing, modeling, collaboration, and self-reflection
- **Formative** – Feedback is used not just to score past work, but to improve future performance

What You Will Be Graded On

Your grade in this practicum is based on the following four categories:

Milestone Deliverables (xx%)

Each of the 12 milestone modules includes a deliverable—such as a risk tracker, strategy memo, decision tree diagram, or reflection worksheet. These are graded using a **five-point rubric** for:

- Conceptual accuracy
- Clarity and structure of communication
- Application of risk tools
- Completeness and professionalism
- Collaboration (if in teams) or thoughtful execution (if working solo)

Example: For Milestone 3, your team might submit a summary report based on the Expert Consensus Method, detailing key assumptions, risk ratings, and your method of analysis.

Reflections and Lessons Learned (xx%)

After each milestone, you will respond to a set of reflection questions. These may be submitted individually (in team settings) or integrated into your overall deliverable (for independent learners). These reflections are assessed on:

- Depth of insight
- Honesty of evaluation
- Evidence of metacognition (thinking about your thinking)
- Relevance to the tools and decision-making process used

Example: After Milestone 6, you might reflect on whether SWOT helped clarify internal versus external risk, and how it shaped your risk response priorities

Final Integration (xx%)

At the end of the course, you will complete a final integration activity that brings together your learning. This may be:

- A **portfolio review** of selected milestone artifacts
- A **capstone summary memo** analyzing your personal risk leadership growth

- A **group debrief** (for teams) focused on shared lessons and recommendations

This component is graded on:

- Synthesis of key concepts across milestones
- Clarity and thoughtfulness of presentation
- Professional tone and delivery

Professional Practice (xx%)

- On-time and complete submissions
 - Quality of teamwork or solo planning
 - Engagement with feedback (e.g. incorporating instructor suggestions)
 - Upholding academic integrity and collaboration guidelines
- This portion reflects your work habits, communication style, and contribution to a respectful, productive learning environment. It includes:
- **Example:** If you're working in a team, this category reflects your follow-through on role-based responsibilities and your constructive support of others.

Sample Milestone Rubric

Each milestone includes its own custom rubric, but all follow a shared pattern like the one below:

Grading rubric for evaluating milestone submissions based on risk tool use, analysis quality, insight, collaboration, and formatting.

Category	Description	Points
Risk Tool Application	Correct and complete use of the assigned tool or framework	2 pts
Logical Structure & Clarity	Well-organized analysis and communication; assumptions clearly stated	2 pts
Creativity & Insight	Thoughtful adaptation of the tool to the SMDC context	1 pt
Collaboration or Execution	Effective teamwork (if applicable) or personal initiative	1 pt
Formatting & Submission	File naming, structure, and final assembly as instructed	1 pt
Total		7 pts

Note: Some milestones may include bonus points for going beyond expectations or proposing alternative frameworks with clear justification.

Resubmissions and Revisions

This course encourages **learning through iteration**. If you submit a milestone that shows effort but misses key elements, you may be invited to revise and resubmit it after receiving targeted feedback. The goal is to improve your skills and deepen your

understanding—not to punish missteps.

Deadlines and resubmission windows are typically determined by your instructor or course facilitator, but we recommend turning in initial drafts early when possible to leave space for review and improvement.

Grade Distribution Summary

Summary of course grade components and their percentage weights.

Component	Weight
Milestone Deliverables	xx%
Reflections & Lessons Learned	xx%
Final Integration Project	xx%
Professional Practice	xx%
Total	100%

Assessment Philosophy

Assessment in this course is not just about points. It is about learning how to deliver value, communicate insight, and reflect on your own growth. If you participate fully, think critically, and apply yourself with intention—you will succeed, even if your initial answers aren't perfect.

The work you do here is meant to be used again—in portfolios, interviews, internships, or real team projects. Take pride in it, revise it, and make it yours.

1.7: Collaboration and Integrity

The Professional Foundation of Risk Practice

Effective risk management depends on two critical pillars: **collaboration** and **integrity**. In real-world projects, risk is rarely owned or resolved by one person. It emerges through shared work—misaligned expectations, missed communications, competing priorities—and it is mitigated through teamwork, transparency, and ethical behavior. This course is designed to help you build the habits and mindsets that foster those outcomes in professional settings.

Whether you are working independently or as part of a team, your success in this practicum depends not only on your ability to complete deliverables, but on your ability to engage honestly, communicate clearly, and take responsibility for your process.

Collaboration Guidelines (For Team-Based Learning)

If you are completing this course as part of a collaborative team, your work will simulate how project teams manage risk in fast-moving, real-world environments. Each team functions as a **decision-making unit**, where each member brings unique strengths, perspectives, and responsibilities.

In team settings, the following practices are expected:

- **Shared responsibility for outcomes** – Everyone contributes to the final deliverable. Roles may be divided, but accountability is collective.
- **Role rotation and clarity** – Across milestones, team members are encouraged to rotate roles such as Project Manager (PM), Senior Risk Manager (SRM), Communicator, or Analyst to experience multiple dimensions of risk work.
- **Respectful communication** – Teams should use structured, professional language in all meetings and written work, listen actively, and assume good intent.
- **Conflict resolution** – Disagreements are normal and encouraged. When they arise, teams are expected to manage them professionally—raising issues respectfully, involving the instructor when necessary, and avoiding personal blame.
- **Credit and attribution** – Every team member's contribution should be acknowledged in milestone submissions, especially for major components such as diagrams, summary narratives, or recommendations.

Collaborative work will be supported by optional tools such as:

- Team role trackers
- Shared deliverable folders with naming conventions
- Peer feedback forms
- Team debrief prompts after each milestone

Your instructor may also assign **team check-in reports** to track participation and support group health.

Independent learners are encouraged to keep a **personal risk journal** to reflect on decisions, assumptions, and turning points in their thinking. This becomes a valuable record of your development as a risk-aware practitioner.

Integrity in Academic and Professional Practice

Integrity is the backbone of trust—both in school and in your future career. In this course, integrity means:

- Submitting original work that reflects your thinking and your team's process
- Citing outside sources if you adapt tools, research, or visuals from public or academic materials
- Avoiding plagiarism or fabrication of data, risk statements, or stakeholder narratives
- Not using AI-generated content as a substitute for analysis, unless explicitly authorized
- Acknowledging contributions in team submissions, and not claiming solo work you did not do

Examples of misconduct include:

- Submitting another team's risk register with small changes
- Using a decision tree diagram you didn't build
- Copying reflections or analysis from classmates or previous versions
- Pretending to contribute to team work you were not part of
- Asking a generative AI to create milestone content and turning it in without revision or disclosure

Violations of academic integrity can result in:

- Rejected or zeroed assignments
- Ineligibility for resubmission
- Formal academic integrity reporting under college policy
- Loss of trust from your instructor and peers

Your work in this course is **preparation for the kind of trust clients, colleagues, and project teams will place in you**. What you build now becomes part of your professional character.

Integrity Within Risk Work

In addition to academic honesty, this course teaches you to practice **integrity in your analysis**. As a risk analyst or project leader, you will often be the one bringing uncomfortable truths to the surface. Integrity in risk management means:

- **Making assumptions explicit**—not hiding uncertainties or gaps
- **Being transparent with decision-makers**—even when the news isn't easy to deliver
- **Stating risks clearly and objectively**—without minimizing or exaggerating
- Acknowledging limitations in your tools, models, or input data
- Treating risk insight as a public good—not a performance exercise

Your audience (real or simulated) should be able to trust your work—because you built it with care, communicated it with clarity, and followed through with honesty.

Guidelines for Independent Learners

If you are completing this practicum on your own, you are taking on all roles in the simulated project environment. That includes analysis, communication, and reflection. You are responsible for:

- Managing your own time and pacing across milestones
- Thinking critically about the tools and decisions used in each module
- Writing original reflections and risk logic based on your own thinking
- Seeking help when needed, rather than borrowing from others
- Using templates and examples to guide structure—not to copy language or conclusions

Our Shared Commitment

This course is built on the belief that learning is a shared effort. Whether you are contributing to a team, submitting an individual analysis, or reflecting on your progress—you are helping shape a learning environment grounded in professionalism and respect.

Everyone in this course has the right to:

- Be heard, without interruption or dismissal
- Receive meaningful credit for their work
- Learn from mistakes without fear of shame
- Be treated with integrity and respect in all collaborations

You are not just learning the tools of risk management—you are building the trust and credibility that will define your professional future.

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1.8: Problem-Based Learning Student Guide

Your Guide to Thriving in a Problem-Based Learning Environment

This course uses a **Problem-Based Learning (PBL)** approach—a method that places you at the center of a dynamic, scenario-driven learning process. Instead of beginning with lectures and ending with an assignment, you will be presented with realistic project problems drawn from the world of **Self-Managed Diabetic Care Inc. (SMDC)**. You'll then use professional tools, decision-making frameworks, and structured teamwork (or independent inquiry) to address the challenge in front of you.

The goal of PBL isn't to memorize facts or repeat theory. It's to **learn how to think and act like a risk professional**—especially when things are unclear, evolving, or at stake.

This guide explains how the process works, what your role is, and how each module is structured.

What to Expect from PBL

In a PBL course, your instructor becomes a **facilitator and guide**, not the central source of information. You are expected to:

- Engage with complex, real-world scenarios
- Use tools to structure your thinking
- Collaborate, communicate, and revise your work
- Reflect meaningfully on your process—not just your product

This can feel different from traditional courses. And that's intentional. PBL mirrors what happens in fast-moving teams, startups, agencies, and healthcare environments—where problems come first and clarity must be built.

Milestone Structure (Using the Updated Framework)

Each milestone in this practicum follows a consistent structure—seven stages designed to build your professional capacity and deepen your learning. Here's what each part means and how to use it.

1. Scenario Briefing

Each milestone begins with a short, high-stakes prompt from inside the SMDC project. It could be a stakeholder email, a partner concern, a systems issue, or a strategic request. This positions you not as a student, but as a professional inside the simulation, responding to urgent needs.

2. Action Strategy

After the problem is introduced, you receive a step-by-step strategy for how to respond. This includes guidance on applying the assigned risk tool, framing your thinking, and dividing responsibilities (if in a team). It functions as your real-world work plan.

3. Your Deliverable

This section defines the work product you'll create. It could be a risk tracker, diagram, analysis memo, or summary table. The format mirrors what professionals submit in actual projects and includes expectations for clarity, structure, and decision logic.

4. Toolkits and Templates

Here, you'll find the resources you need to succeed: editable templates, sample outputs, video walkthroughs, and contextual guides. These are not “answers”—they are scaffolds that help you act with confidence and autonomy.

5. Critical Reflection

After your analysis is complete, you'll be prompted to reflect on the experience. What worked? What didn't? What assumptions changed? This helps you internalize risk thinking and practice professional metacognition.

6. **Quality Control Review**

Before submission, you'll complete a checklist to confirm that your deliverable meets formatting, logic, and completeness standards. This simulates real-world project quality checks and supports student accountability.

7. **Final Wrap-Up and Submission**

You'll package your final product, attach your reflection, and upload it according to instructions. This section mirrors the handoff or presentation moment in project life—where your work must speak for itself.

This format stays consistent across all 12 milestones so you can focus on the challenge—not the process.

How to Succeed in a PBL Environment

Whether working alone or in a team, these principles will help you thrive:

- **Be active, not passive.** Read the scenario carefully. Ask what's missing. Start drafting. You learn by doing.
- **Use the tools as thinking frameworks.** Don't treat templates as worksheets—treat them as conversation starters or decision maps.
- **Lean on your team (if you have one).** Collaborate early. Divide roles. Keep each other accountable. Risk management is a group sport.
- **Reflect after the work is done.** Don't skip the reflection prompts. That's where most learning—and leadership insight—happens.
- **Treat your submissions like professional work.** Label, format, and communicate as if your document were going to a CEO or clinical partner.

Your Role in This Learning Model

You are not completing assignments. You are acting in a professional simulation. Your job is to:

- Take ownership of decisions
- Analyze scenarios from a risk perspective
- Apply appropriate tools
- Communicate with clarity
- Reflect honestly on your process

This mindset will help you not only succeed in the course, but build confidence for interviews, internships, and real-world project environments.

Assessment in a PBL Course

Your work will be evaluated not just on whether it's "correct," but on:

- How clearly you apply tools
- How thoughtfully you respond to uncertainty
- The quality and completeness of your deliverables
- Your reflections and improvement over time

For full details, refer to the *Grading and Assessment Overview* in the Front Matter.

Final Note

Problem-Based Learning asks more of you—but it gives more back. You won't just finish this course with knowledge. You'll leave with a **toolkit, a mindset, and a practice** that prepares you to step into high-responsibility roles with clarity and capability.

The simulation is waiting. Your first Scenario Briefing is just a few pages away.

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1.9: Overview of SMDC (Self-Managed Diabetic Care Inc.)

Your Living Case Study

Throughout this course, you will work inside a simulated project environment based on a startup called **Self-Managed Diabetic Care Inc. (SMDC)**. This fictional company serves as the foundation for all milestone tasks, decision scenarios, stakeholder memos, and risk challenges.

SMDC is not a hypothetical “business case” you analyze from the outside. It is an evolving system you will **step into**—as if you were embedded in the company as a risk analyst, strategist, or project lead. You will act on behalf of SMDC, helping shape critical decisions through structured risk thinking.

This section introduces the background, mission, and operating landscape of SMDC, as well as the risks, constraints, and opportunities that define its journey. Understanding this context is essential for all subsequent work in the course.

The Mission

SMDC was founded by a small group of technologists, clinicians, and health equity advocates to solve a persistent problem in chronic care: **the lack of accessible, integrated, and empowering data tools for people living with diabetes**.

Specifically, SMDC is developing a **data dashboard and digital platform** that helps individuals with **Type 1 and Type 2 diabetes** manage their health more effectively. The dashboard is designed to:

- Consolidate data from wearable devices (e.g., glucose monitors, insulin pumps, smartwatches)
- Provide real-time feedback and trend visualizations
- Support clinician-patient communication
- Offer personalized insights and alerts
- Increase patients’ sense of control over their own health decisions

The company’s tagline reflects its mission:

“Your data. Your dashboard. Your decisions.”

At its heart, SMDC is trying to shift power and agency back to patients—while also creating tools that clinicians, caregivers, and researchers can use to improve outcomes and reduce preventable harm.

Why Diabetes?

Diabetes is a **data-driven disease**. People with diabetes track their blood glucose multiple times a day, adjust insulin doses, log meals and exercise, and manage medication timing. However, these data streams are often:

- Fragmented across devices and apps
- Hidden behind proprietary platforms
- Lacking context or real-time usefulness
- Not easily shareable with care teams or family members

The result: many patients operate in a constant state of risk, anxiety, and guesswork. SMDC believes that better tools can reduce harm, reduce emergency care, and improve quality of life.

The Product Vision

SMDC’s initial product is a **Minimum Viable Product (MVP)**: a web-based dashboard that consolidates data from three major device types and provides customizable visualizations and alerts. The MVP will:

- Launch with 50 test patients and 3 clinical partners
- Include integration with at least one glucose monitoring device and one fitness tracker
- Be developed in 6 months
- Operate with a seed budget of \$250,000
- Comply with relevant HIPAA data protection regulations

If successful, SMDC plans to expand the product to include:

- AI-based trend predictions
- Broader device interoperability
- Care team messaging tools
- Multilingual interfaces for equity and access

The Startup Context

SMDC is a classic early-stage startup: high potential, limited resources, and constant pressure to move quickly without compromising safety. The team includes:

- 3 full-time engineers
- 1 part-time regulatory consultant
- 1 clinical advisor
- 1 product manager
- 1 operations and marketing coordinator

The founders are passionate but stretched thin. They are working in a fast-moving environment where regulatory rules shift, stakeholder needs evolve, and technical decisions often carry downstream consequences for safety, equity, and trust.

As the embedded risk analyst in this world, your job is not to slow the project down—it is to help the team **make better decisions, earlier, with greater clarity.**

Key Stakeholders

In the SMDC ecosystem, you'll encounter a range of internal and external stakeholders:

- **Patients** – individuals with diabetes (and their caregivers) who use the dashboard daily
- **Clinicians** – physicians, nurses, and educators who interpret the data and integrate it into care
- **Regulators** – agencies like the FDA and HHS that oversee compliance and public safety
- **Device Manufacturers** – companies that build and protect the APIs and data streams
- **Investors and Funders** – angel investors who want to see progress and impact
- **Community Health Advocates** – who care about underserved populations and data justice

Each stakeholder has different **risk sensitivities**, priorities, and constraints. One of your challenges will be learning how to assess risk not just technically, but **politically and ethically**, across this diverse landscape.

Initial Constraints

Like most startups, SMDC faces several hard limitations that shape its risk landscape:

- A fixed development timeline (6 months to MVP)
- Limited funding and staff capacity
- Third-party device restrictions and limited APIs
- Unclear FDA guidance for certain predictive tools
- Patient populations with varying levels of digital literacy
- The need to launch with a real-world use case, not a theoretical one

You will return to these constraints throughout the course. They define the operating environment of your risk recommendations and response strategies.

Why This Case Was Chosen

SMDC was created specifically for this course because it captures what real project managers and analysts face every day:

- Fast timelines with unclear information
- Mission-driven goals complicated by technical and stakeholder risks
- The pressure to act without complete certainty
- The need for tools that support **strategic communication, not just spreadsheets**

By immersing yourself in this simulated organization, you will:

- Apply professional risk tools in a context that feels real
- Experience how risks emerge, evolve, and interact across functions
- See how values like safety, equity, and clarity show up in risk work
- Practice making decisions that affect others—before doing so in real life

Your Role in the SMDC World

You are now part of the SMDC extended team. You will receive memos, tackle problems, and deliver insights that shape the project's future. You may not have total control, but you do have something powerful: the ability to see what others miss, and the skills to bring that insight forward in a clear, timely, and trustworthy way.

This is your training ground. The dashboard may be fictional, but the decisions—and the growth—are real.

1.10: Forming Teams for the Practicum

Risk Management is a Team Sport

In the real world, risk is not identified, mitigated, or managed by a single person. It emerges from—and is resolved within—teams. Product teams, compliance teams, clinical teams, executive teams. Every successful risk strategy is the result of **shared attention, diverse perspectives, and structured collaboration**.

This practicum was designed to reflect that reality. Whenever possible, students are encouraged to complete this course in **teams of 3 to 5 people**, simulating the kind of cross-functional work environments found in healthcare, tech, and nonprofit project settings.

Working in a team allows you to experience the interpersonal, political, and process-based challenges that shape real-world risk work—and to build confidence in how to navigate them.

Team Formation Guidelines

If you are enrolled in a for-credit class using this OER, your instructor will either:

- Assign you to a team based on availability, balance, and learning needs,
- Or allow you to self-select into groups early in the course.

Instructors will often use short intake surveys to assess:

- Weekly availability
- Interest in leadership or support roles
- Preferred work styles or communication tools
- Prior experience (though no background is required)

Once your team is confirmed, you will receive a **shared folder**, naming conventions, and an optional **team charter** template to guide collaboration.

For independent learners or small study pods, we recommend reaching out to 1–2 peers through online forums or study groups to simulate team dialogue, even if submissions remain individual.

Ideal Team Size and Composition

Most milestones are designed for **teams of 3 to 5**, which allows for:

- Functional role rotation
- Peer feedback
- Manageable communication
- Redundancy if someone is absent or delayed

Smaller teams (e.g., 2) may need to take on multiple roles per person. Larger teams (6+) are not recommended unless an instructor has designed custom scaffolding to support them.

The strongest teams include a mix of thinkers:

- Detail-oriented planners
- Big-picture strategists
- Visual communicators
- Technically curious analysts
- Collaborative listeners

Everyone brings value. The goal is not to all think alike—but to work in alignment.

Recommended Team Roles

To simulate a professional working environment, each team should assign and rotate key roles during each milestone. These may include:

- **Project Manager (PM)** – Facilitates weekly planning, milestone checklists, and team pacing. Ensures deliverables are submitted on time.
- **Senior Risk Manager (SRM)** – Leads risk tool application (e.g., creating diagrams, analyzing data). Ensures tools are applied correctly.
- **Communicator** – Prepares written summaries, creates team slides, and clarifies final deliverables. Acts as team spokesperson if needed.
- **Researcher/Validator** – Cross-checks assumptions, checks regulatory or technical context, ensures accurate use of terminology or concepts.
- **Facilitator (Optional)** – If teams are larger, someone may support meeting facilitation, time management, and synthesis of ideas.

Roles should rotate with each milestone to ensure shared growth and distributed accountability. Every team member should experience at least two different roles during the course.

Best Practices for Team Collaboration

Successful teams treat collaboration as a skill, not an accident. Here are some proven practices:

- **Meet early and often** – Set a standing check-in time (even 30 mins weekly) to review the milestone memo and assign roles.
- **Use shared files** – Google Drive, OneDrive, or Dropbox folders allow live co-authoring, commenting, and version control.
- **Name files clearly** – Use a shared naming convention like M04_ControlChecklist_TeamR to keep work organized.
- **Respect all voices** – Create space for quieter members to contribute, especially during brainstorming or decision moments.
- **Debrief as a team** – Use reflection questions to process what worked and what didn't. This builds psychological safety and performance.
- **Flag issues early** – If a teammate disappears, misses work, or creates conflict, inform the instructor early—before it damages trust.

Instructor Support for Teams

Instructors using this OER are encouraged to:

- Provide **lightweight scaffolding** for team setup (e.g., icebreakers, role assignment templates)
- Monitor participation through milestone submissions and team status reports
- Facilitate respectful interventions when needed, especially if power imbalances, absences, or group tension arise
- Use **peer evaluation tools** sparingly but strategically to support equitable grading if needed

The purpose of team-based learning is to build real-world leadership capacity—not to add stress or create dependency. Instructors may offer the option to **opt-out** of team work in certain cases, or allow independent submissions when justified.

What to Do If a Team Member Falls Behind

Risk work involves dependencies—and sometimes, those dependencies break. If a teammate falls behind or drops out:

- Do your best to cover the gap collaboratively
- Document which parts were completed by whom
- Let the instructor know in a respectful, timely way
- Reflect honestly in your milestone journal

You are not expected to fix every breakdown. But you are expected to respond with professionalism.

Team vs. Solo Work: A Summary

Comparison of team-based and independent work approaches in the practicum.

Working in a Team	Working Independently
Simulates cross-functional collaboration	Mirrors individual analyst or consultant role
Requires coordination and shared leadership	Requires self-management and role-switching
Offers more ideas, feedback, support	Offers more autonomy and flexibility
Focuses on interpersonal growth	Focuses on personal process clarity
Needs strong communication and planning	Needs discipline and self-direction

Both paths are valid and valuable. What matters is that you **engage the process** fully, thoughtfully, and professionally.

1.11: Project Management Basics

The Context for Risk: Projects, People, and Priorities

Before we dive deep into risk tools and scenario planning, it's important to understand where risk lives—and why it matters—in the larger world of project management. Risk is not a side activity. It is woven into every decision, every delay, every tradeoff, and every moment of misalignment in a project.

This section provides a quick but meaningful orientation to project management fundamentals. Whether you're already familiar with concepts like “scope” and “stakeholders” or this is your first time hearing them, what follows will give you a shared vocabulary and mental model for thinking like a project professional.

What Is a Project?

A **project** is a temporary effort undertaken to create a **unique product, service, or result**. It is not routine work or a recurring operation—it has a beginning, an end, a defined objective, and constraints.

Examples of projects include:

- Building a health dashboard for diabetic patients (like SMDC)
- Redesigning a website for accessibility
- Launching a new product feature
- Conducting a feasibility study for solar panels on campus
- Organizing a professional conference

Every project is shaped by three key features:

1. **Uniqueness** – No two projects are identical, even if they look similar. The context always changes.
2. **Constraints** – Projects are bound by limitations: time, money, people, tools, and competing goals.
3. **Uncertainty** – Because projects are novel, they come with unknowns. This is where risk lives.

The Five Pillars of Project Success

Throughout this course, we will frequently reference the five foundational pillars of project management:

1. **Scope** – What will be delivered (and what won't)?
2. **Time** – When must it be done?
3. **Cost** – What resources (budget, people, tools) are required?
4. **Quality** – What standards must be met? What defines success or failure?
5. **Team** – Who is doing the work? Are the right people involved, aligned, and supported?

These pillars are in constant tension. A change in one affects the others:

- If you add more features (scope), the timeline may stretch (time), and the cost may increase.
- If a team member leaves mid-project (team), the quality of output or timing might suffer.
- If cost is fixed, you may have to reduce scope or delay delivery.

Risk management exists to **protect and rebalance these pillars**—to help project teams anticipate threats, design controls, and make tradeoffs intentionally rather than reactively.

Who's Involved in a Project?

Most projects involve a mix of the following roles. Understanding them will help you assess where risks are likely to emerge, and whose needs must be considered:

- **Project Manager (PM)** – Responsible for planning, monitoring, and delivering the project on time, on scope, and on budget. Coordinates people, timelines, and communications.
- **Sponsor** – The executive or entity funding and supporting the project. They may set strategic goals and make final approvals.
- **Team Members** – The people doing the work—designers, engineers, researchers, analysts, writers, testers.
- **Stakeholders** – Anyone affected by the project's outcome: users, partners, regulators, clients, community members, etc.
- **Subject Matter Experts (SMEs)** – Specialists who provide technical, regulatory, or field-specific expertise.
- **Users/Clients** – The end recipients of the product or service. Their satisfaction is often the most important measure of success.

Every one of these roles brings **different priorities, assumptions, and risk tolerances**. Effective risk managers learn to communicate across these perspectives and design solutions that align with what matters most to each stakeholder group.

The Project Lifecycle

Every project follows a basic lifecycle. While terminology may vary, most frameworks include five key phases:

1. **Initiation** – The project is proposed, scoped, and approved. Key stakeholders are identified. Feasibility and value are assessed.
2. **Planning** – The project team defines what will be done, by whom, when, and with what resources. This is where risk planning begins.
3. **Execution** – The team begins to do the work—coding, building, designing, testing, facilitating. Coordination and communication are critical.
4. **Monitoring & Control** – The project is continuously measured against its plan. Adjustments are made to time, cost, or scope. Risks are tracked and responded to here.
5. **Closing** – The final deliverables are completed and handed off. The team documents lessons learned and formally ends the project.

Risk is present in **every phase**—but it is most preventable during planning, and most expensive during execution or closing. This is why proactive risk management is a core part of every successful project.

What Does Risk Look Like in Projects?

Project risks come in many forms. They are not only technical. They may include:

- A team member unexpectedly leaving
- A software bug causing patient data to be exposed
- A partner pulling out of a contract at the last minute
- A stakeholder refusing to approve a decision they had previously agreed to
- Regulatory guidance changing mid-project
- An untested device causing real harm

Good risk managers don't panic when things go wrong. They design projects to **expect** risks, reduce their likelihood, and minimize their impact when they occur. This course will train you in how to do that.

Your Job in This Practicum

You are not expected to become a certified project manager in this course. But you are expected to:

- Understand how risk affects all parts of a project
- Use professional vocabulary to describe issues, tradeoffs, and recommendations
- Read memos, project charters, and milestone briefings as if you were a working team member
- Document your decisions in a way that supports accountability and team alignment
- Anticipate what could go wrong, and help others make better decisions because of it

Even if you never become a full-time PM, you will likely lead projects, coordinate teams, or manage deadlines in your career. These foundations will help you approach every project with more clarity, confidence, and control.

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1.12: Tools and Resources

Introduction

One of the biggest misconceptions about risk management is that it is primarily about filling out forms, maintaining spreadsheets, or updating documentation. While documentation is important, effective risk management is fundamentally about improving decision-making. The purpose of every tool, framework, checklist, and worksheet in this practicum is to help individuals and teams better understand uncertainty, communicate concerns, evaluate alternatives, and take informed action.

The tools presented throughout this book are not intended to be used mechanically. They are designed to support critical thinking, collaboration, reflection, and leadership. A risk matrix cannot make a decision for you. A contingency plan cannot eliminate uncertainty. A stakeholder map cannot guarantee alignment. These tools simply help make complex situations more visible and manageable.

Throughout this practicum, you will build and use a collection of professional risk management tools. Some focus on identifying risks. Others help prioritize concerns, design controls, support decisions, or improve communication. Together, they create a practical toolkit that can be applied far beyond the SMDC case study.

This chapter introduces the major tools used throughout the course and explains how they fit into the overall learning journey.

A Note About Frameworks and Terminology

Many of the concepts and methods used in this practicum are inspired by established practices from project management, systems thinking, quality improvement, organizational learning, healthcare operations, software engineering, and leadership development.

Different organizations often use different names for similar concepts. For example:

- One organization may refer to a Risk Breakdown Structure.
- Another may call it a Risk Taxonomy.
- Another may use the term Risk Hierarchy.

The specific name matters less than the purpose behind the tool.

The goal of this textbook is not to teach a particular proprietary vocabulary. Instead, it focuses on helping students understand:

- Why the tool exists
- When to use it
- What questions it helps answer
- How it supports decision-making

Students should focus on developing transferable skills rather than memorizing terminology.

Categories of Tools Used in This Practicum

The tools in this book generally fall into six categories:

Risk Identification Tools

Used to discover, organize, and describe uncertainty.

Risk Analysis Tools

Used to prioritize risks and determine which deserve attention first.

Risk Response Tools

Used to design controls, mitigation strategies, and corrective actions.

Stakeholder Engagement Tools

Used to understand how different groups perceive and experience risk.

Decision Support Tools

Used to compare alternatives and evaluate tradeoffs.

Reflection and Learning Tools

Used to strengthen organizational learning, communication, and leadership development.

Each milestone introduces one or more tools from these categories.

Risk Identification Tools

Risk Breakdown Structure (RBS)

Used in: Milestone 1

The Risk Breakdown Structure is one of the first tools introduced in this practicum. It provides a hierarchical way of organizing risks into categories and subcategories.

Rather than viewing risks as an unstructured list, the RBS helps teams see patterns and relationships between risk areas.

The RBS helps answer questions such as:

- Where are our greatest concentrations of uncertainty?
- Which categories have been overlooked?
- Are we focusing too heavily on one area while ignoring another?

Benefits include:

- Improved visibility
- Better communication
- More complete risk identification
- Stronger planning discussions

The RBS becomes the foundation for many later milestones.

Planning Meeting and Analysis

Used in: Milestone 1

Planning meetings are structured conversations designed to surface assumptions, identify concerns, and gather multiple perspectives.

The objective is not simply to brainstorm risks but to organize thinking around project objectives, constraints, and uncertainties.

Benefits include:

- Shared understanding
- Early issue identification
- Stakeholder engagement
- Improved alignment

Risk Analysis Tools

Risk Impact Matrix

Used in: Milestone 2

Once risks are identified, teams must decide which risks deserve attention first.

The Risk Impact Matrix helps compare risks based on:

- Likelihood
- Impact
- Relative significance

The matrix helps teams move beyond intuition and toward structured prioritization.

Benefits include:

- Better resource allocation
- Clear prioritization
- More focused discussions
- Improved transparency

Stakeholder Risk Scoring

Used in: Milestone 3

Different stakeholders experience risk differently.

A patient, clinician, engineer, and executive may evaluate the same risk in completely different ways.

Stakeholder risk scoring helps teams:

- Compare perspectives
- Validate assumptions
- Reduce individual bias
- Improve decision quality

The purpose is not to eliminate disagreement but to make it visible.

Risk Response Tools

Preventive Control Checklist

Used in: Milestone 4

Preventive controls are actions designed to reduce the likelihood that a risk event will occur.

Examples include:

- Review processes
- Testing procedures
- Approval workflows
- Communication protocols

The Preventive Control Checklist helps teams define:

- What action will occur
- Who owns it
- When it happens
- How success will be measured

Root Cause Analysis

Used in: Milestone 5

Many organizations focus on symptoms rather than causes.

Root Cause Analysis helps teams move beyond surface-level explanations and identify underlying drivers of risk.

Methods include:

- Cause Tracer Diagrams
- Fishbone Diagrams
- Five Whys Analysis

Benefits include:

- Better problem-solving
- Fewer recurring issues
- Stronger organizational learning
- More effective controls

Strategic Planning Tools

SWOT Analysis

Used in: Milestone 6

SWOT stands for:

- Strengths
- Weaknesses
- Opportunities
- Threats

The purpose is to evaluate both internal and external factors that influence project success.

SWOT provides a foundation for strategic planning and risk-informed decision-making.

TOWS Matrix

Used in: Milestone 6

The TOWS Matrix builds on SWOT by transforming observations into strategic actions.

It helps teams answer questions such as:

- How can strengths reduce threats?
- How can opportunities offset weaknesses?
- How can risks become strategic advantages?

The TOWS framework shifts thinking from analysis to action.

Stakeholder Engagement Tools

Patient Business Model Canvas

Used in: Milestone 7

This adapted Business Model Canvas focuses on the patient experience.

Rather than analyzing business value alone, it helps teams examine:

- Trust
- Accessibility
- Communication
- Emotional impact
- User burden

This tool reinforces the idea that risk exists not only in systems but also in human experience.

Stakeholder Convergence Map

Used in: Milestone 8

The Stakeholder Convergence Map compares how different groups perceive risk.

It highlights:

- Alignment
- Misalignment
- Blind spots
- Areas requiring dialogue

The tool supports collaboration and cross-functional understanding.

Decision Support Tools

Control Prioritization Matrix

Used in: Milestone 9

Not every control can be implemented.

Teams must make choices based on:

- Cost
- Effort
- Impact
- Timing

The Control Prioritization Matrix helps identify which actions offer the greatest value given available resources.

Decision Tree Analysis

Used in: Milestone 10

Decision trees help teams visualize alternatives and their consequences.

They support discussions involving:

- Tradeoffs
- Probabilities
- Dependencies
- Cascading outcomes

Decision trees are particularly valuable when multiple paths appear reasonable but produce different risks.

Response and Recovery Tools

Contingency Planning

Used in: Milestone 11

Even well-managed projects encounter unexpected events.

Contingency planning prepares teams for risk activation by defining:

- Trigger conditions
- Response actions
- Escalation procedures
- Recovery plans

The objective is not to predict every possible event but to improve preparedness.

Reflection and Learning Tools

SEW Model (Sensation–Emotion–Want)

Introduced in: Part III

The SEW Model helps individuals understand how emotional responses influence risk perception and decision-making.

The model explores:

- Sensation
- Emotion
- Want

It encourages self-awareness and helps teams recognize early signals that traditional risk tools may miss.

Organizational Memory Systems

Introduced in: Part III

Organizations often repeat mistakes because lessons are forgotten.

Organizational memory practices help teams:

- Capture lessons learned
- Improve future decisions
- Reduce recurring failures
- Build stronger risk cultures

Examples include:

- After-action reviews
- Risk logs
- Retrospectives
- Decision journals

Supporting Resources Available in This Practicum

In addition to milestone tools, students have access to:

- Student Workbook
- Instructor Guide
- Glossary of Terms
- Milestone Worksheets
- Reflection Frameworks
- Capstone Guidance
- Case Study Articles
- Sample Deliverables

Together, these resources create a complete learning ecosystem designed to support both technical and leadership development.

Final Thought

The purpose of these tools is not to create more paperwork.

The purpose is to help you develop the ability to notice uncertainty, ask better questions, facilitate meaningful conversations, and make thoughtful decisions when outcomes are unclear.

Tools support the work.

People do the work.

And risk leadership begins when you learn how to use both effectively.

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2: PART I- FOUNDATIONS

Introduction

The SMDC case study is the backbone of this practicum. Every milestone, decision, and design conversation takes place within its context. Understanding SMDC not just as a project—but as a living, evolving organization with constraints, stakeholders, and ambitions—is essential for meaningful engagement with the risk work ahead.

In this chapter, we take a narrative and systems-level view of SMDC: who they are, what they're building, what forces shape their world, and why risk management is not just important—but defining.

The Founding Problem: Self-Managed Diabetes is a Data Burden

Diabetes is a chronic condition. But unlike most chronic conditions, **diabetes is largely managed not by clinicians—but by patients themselves**. Every day, people with Type 1 and Type 2 diabetes make dozens of data-informed decisions:

- When and what to eat
- When and how much insulin to administer
- How to interpret glucose fluctuations
- When to seek help or adjust routines

Yet the data tools available to them are fragmented, technical, or emotionally confusing. Real-time Continuous Glucose Monitor (CGM) data lives in one app. Fitness data in another. Meal logs in a third. Advice from clinicians might arrive by text, email, or not at all.

This is the gap SMDC (Self-Managed Diabetic Care Inc.) was formed to address.

The SMDC Vision

SMDC is a health technology startup with a mission to:

“Translate complex diabetes data into simple, actionable insight that builds trust, safety, and independence.”

Their goal is to design a **patient-facing dashboard** that:

- Consolidates device data
- Visualizes blood glucose trends and alerts
- Offers behavior prompts that support self-care
- Enables secure data-sharing with clinicians
- Respects patients' autonomy, privacy, and emotional experience

This is not just a product—it's a **personal assistant, risk interpreter, and decision partner** for people managing one of the world's most data-dependent conditions.

Timeline, Funding, and Product Scope

As the course begins, SMDC is six months into its startup life. It has:

- A small seed funding round (enough to build an MVP)
- A multidisciplinary founding team (tech, product, and clinical advisory)
- A commitment to pilot with early user groups in three months
- A narrow MVP scope with high expectations

The team is under pressure to:

- Deliver a demo-ready product within a fixed sprint calendar
- Balance speed and clinical credibility
- Meet HIPAA compliance
- Establish internal process and culture from scratch

Startup risk is baked into every aspect of the SMDC timeline. There is no buffer. Every decision, control, and breakdown has consequence.

Key Stakeholders and Their Tensions

SMDC is a system of humans. The risks and decisions in this book live in the tensions between stakeholders:

Patients

- Manage diabetes daily
- Seek tools that feel supportive, not judgmental
- Vary widely in tech comfort, education, language, and routine
- Care about clarity, control, and emotional safety

Clinicians

- Provide expert guidance, but only intermittently
- Need accurate data that doesn't overwhelm
- Are wary of tools that confuse patients or undermine their role
- Balance legal liability with ethical responsibility

Engineers

- Build the dashboard logic, data architecture, and APIs
- Depend on third-party data (CGMs, trackers, nutrition apps)
- Work under tight technical constraints
- Often lack visibility into clinical or emotional design issues

Product and UX Designers

- Bridge user needs and business requirements
- Translate between behavior, interface, and compliance
- Make tradeoffs between clarity, control, and speed

Regulators, Funders, and Partners

- Influence how features are scoped and communicated
- Require documentation, consent protocols, and safe defaults
- Evaluate whether SMDC builds trust and demonstrates future value

All these voices are active—but not always aligned.

Why Risk Thinking Matters at SMDC

SMDC operates in the real world, with real stakes. Risks at SMDC are:

- Technical (system downtime, data mismatch, alert failure)

- Clinical (dangerous recommendations, misread trends)
- Emotional (patient overwhelm, clinician distrust)
- Cultural (inequity, exclusion, usability assumptions)
- Legal (HIPAA, FDA oversight, audit trails)
- Strategic (burnout, funding gaps, unclear handoffs)

Risk cannot be owned by one team or avoided through perfection. It must be **surfaced, structured, and shared**.

In this practicum, you will step into the SMDC team as a **risk strategist and analyst**, embedded in their journey. Your work will not be theoretical—it will reflect the real choices that early-stage teams must make under pressure, ambiguity, and mission-driven urgency.

A Final Word Before You Begin

Remember: you are not just evaluating someone else's project. You are stepping into a living system—with data, tension, emotion, and tradeoffs.

You are here to help a team manage risk—not just protect the product, but **protect the people** it's designed to serve.

Now turn the page—and step into SMDC.

[2.1: Chapter 1 – Understanding Risk in Practice](#)

[2.2: Chapter 2 – The SMDC Case Study](#)

[2.3: Chapter 3- Managing Diabetes in a Data-Driven World- What Risk Thinkers Need to Know](#)

[2.4: Chapter 4- Building SMDC- The Real-World Challenges of Launching a Health-Tech Startup in a High-Stakes Environment](#)

2.1: Chapter 1 – Understanding Risk in Practice

Introduction: Seeing Risk with New Eyes

Risk isn't just a concept reserved for financial markets or cybersecurity briefings. In the world of projects—especially those involving people, technology, and real-world consequences—**risk is woven into every decision, delay, dependency, and assumption**. It lives in our calendars, in our teams, in our unspoken expectations—and often in our silence.

To manage projects effectively, we must learn to **see risk early**, name it clearly, and engage with it before it engages with us.

This chapter is your starting point. It introduces four core building blocks for understanding risk in a project environment:

1. The difference between a **risk** and a **constraint**—and why confusing the two derails good planning
2. **The Five Pillars of Project Management** and how each is shaped by risk
3. The importance of risk control across the project lifecycle
4. The **mindset** that **transforms** a checklist-keeper into a **real risk leader**

Through SMDC examples, guided questions, and practical framing, you will begin to shift your thinking from:

“What are we building?”

to

“What could interfere with our ability to build it—and what are we going to do about it?”

Risk vs. Constraint: Knowing What You Can Shape

Let's start with a simple—but critical—distinction. In project conversations, people often use the words **risk** and **constraint** interchangeably. But doing so leads to flawed plans, unrealistic expectations, and wasted effort.

What Is a Risk?

A **risk** is an **uncertain future event** that could affect the project—either positively or negatively. Risks live in the realm of possibility. They are not guaranteed to happen, but if they do, they will have **an impact on at least one project objective**.

Examples of risks:

- A device API update that could break data synchronization mid-launch
- A key engineer possibly leaving the company
- Regulatory approval that may be delayed
- A strategic partnership that might increase platform adoption

Risks may:

- Be avoided
- Be mitigated
- Be transferred to others (e.g., through contracts)
- Be accepted (if the cost of action is higher than the risk itself)
- Present **opportunities**, not just threats

What Is a Constraint?

A **constraint** is a **fixed limitation** that already exists or has been externally imposed. It's not uncertain. It's a fact—a boundary you must design around.

Examples of constraints:

- The project must launch by December 1
- The MVP budget is capped at \$250,000
- The dashboard must comply with HIPAA
- The wearable device only offers 5 data export points per hour

Constraints cannot be mitigated. They must be **accommodated or renegotiated**.

Why the Distinction Matters

Confusing risks with constraints leads to:

- Time spent “mitigating” things that are already unchangeable
- Teams failing to act on risks because they treat them as fixed
- Risk registers cluttered with items that don’t belong
- Missed chances to reduce uncertainty early

SMDC Example

If SMDC is required to use a specific hardware sensor that limits data collection frequency, that’s a **constraint**. However, if there’s a chance that a new firmware update might allow faster syncing, that’s a **risk**—an opportunity you can explore and plan for.

Key Takeaways

- Risks are uncertain; constraints are known
- Risks affect the future; constraints shape the present
- Planning improves when we label them correctly

The Five Pillars of Project Management: Where Risk Lives

All project risks—whether technical, financial, interpersonal, or strategic—manifest across **five core dimensions**, also known as the **Five Pillars**:

these pillars are often in **dynamic tension**. Strengthening one may compromise another.

Risk Through the Lens of the Five Pillars

1. **Scope Risk**
 1. New features are added late in the process (scope creep)
 2. Requirements are vague or shifting
 3. Stakeholders disagree on what’s “in” or “out” of the MVP
2. **Time Risk**
 1. Vendor integration is delayed
 2. Testing takes longer than planned
 3. Key decision-makers are unavailable during critical phases
3. **Cost Risk**
 1. Legal fees are higher than expected
 2. An unexpected bug increases labor hours
 3. Funding milestones are missed
4. **Quality Risk**
 1. User experience suffers due to rushed delivery
 2. Clinical validation is incomplete
 3. Errors in data display lead to unsafe usage
5. **Team Risk**
 1. Burnout reduces performance
 2. Internal conflict derails alignment

3. Staff leave without sufficient handoff

SMDC Case Applications

- FDA approval delays → **Time risk**
- Expanding features to include blood pressure → **Scope and Cost risk**
- Clinician disengagement due to confusing UX → **Quality and Team risk**

Why It Matters

Seeing risk through these pillars helps you:

- Clarify where pressure will show up
- Prioritize based on what the project values most
- Trace how one risk (e.g., scope change) may cause a **cascading impact** across multiple pillars

Key Takeaways

- Every risk touches at least one pillar
- Tradeoffs are inevitable—plan for them early
- Risk-aware teams surface pillar tension **before** it becomes conflict

Control Across the Lifecycle: Risk as a Continuous Function

Many people believe risk management is a **planning-only task**—something done at the beginning of the project and filed away. That belief is one of the leading causes of project failure.

In reality, **risk management is continuous**. It must adapt as the project evolves, assumptions change, and new information becomes available.

The Project Lifecycle Phases

1. **Initiation** – Risks are vague but high-stakes. This is where the team asks: “*Should we do this at all?*”
2. **Planning** – Risks are actively identified and prioritized. Assumptions are challenged. Controls are designed.
3. **Execution** – Some risks materialize. Monitoring becomes critical. Contingency plans may be activated.
4. **Monitoring & Control** – Progress is measured. Risk registers are updated. Status reports surface issues.
5. **Closing** – Risks of incomplete handoff or unresolved issues emerge. Lessons learned are documented.

Types of Risk Controls

- **Preventive** – Actions taken to reduce the probability of a risk
 - Ex: Require dual testing before code is pushed live
- **Detective** – Tools or processes to detect when a risk is happening
 - Ex: Alerts for system downtime or missed API calls
- **Corrective** – Actions to reduce impact after a risk occurs
 - Ex: Rollback plan for flawed deployment

SMDC Example

In Milestone 4, you may design a **checklist** to ensure clinicians are involved in every major design decision. That’s a **preventive control**. In Milestone 10, you might develop a **decision tree** for selecting a fallback vendor—used only if the first one fails. That’s a **contingency control**.

Key Takeaways

- Risk must be managed across the entire lifecycle—not just at kickoff
- Good controls anticipate both **prevention** and **response**
- The risk register is a living document—it evolves with the project

The Mindset of a Risk Manager: Beyond the Tools

The final section of this chapter focuses not on frameworks, but on **you**—the person doing the work.

Being a good risk manager is not just about using tools. It's about adopting a mindset that helps you:

- Surface hard truths
- Lead with clarity
- Help teams face uncertainty with confidence

Five Core Traits of Risk-Aware Leaders

- **Anticipation Over Reaction**
 - They ask “What could go wrong?” before it does
 - They rehearse contingencies
 - They challenge assumptions early
- **Collaboration Over Isolation**
 - They create psychological safety
 - They invite concerns, even unpopular ones
 - They never assume they know everything
- **Systems Thinking**
 - They see interconnections
 - They trace causes, not just symptoms
 - They anticipate downstream effects
- **Action With Humility**
 - They move forward without needing all the answers
 - They share doubt openly
 - They ask more than they assert
- **Clarity as Compassion**
 - They write clearly
 - They frame risks in ways that enable action
 - They focus on what others need to know—not just what they know

Developing Your Risk Voice

Throughout this course, you'll receive:

- Prompts to surface assumptions
- Opportunities to justify choices
- Feedback on how you communicate complexity
- Reflections that help you examine your process, not just your outcome

Your goal isn't just to fill in a matrix. It's to become the person a team turns to when things get messy.

Key Takeaways

- Mindset defines the impact of your tools
- Risk leaders foster confidence—not fear
- Clarity, curiosity, and courage are more important than certainty

Conclusion: From Project Goals to Risk Questions

By the end of this chapter, you should be able to:

- Explain what makes something a risk—not just a problem or constraint
- Map how risk touches every part of a project, especially the Five Pillars
- Describe how risk is managed throughout the lifecycle—not just up front
- Reflect on the traits that define high-impact risk thinkers and communicators

This chapter is not just conceptual. It is the mental software you will use throughout the rest of this course. Every milestone you complete will ask you to think, act, and speak like a **real risk manager**—because that's what you're becoming.

2.2: Chapter 2 – The SMDC Case Study

Introduction: A Startup at the Edge of Innovation and Uncertainty

Self-Managed Diabetic Care Inc. (SMDC) is a fictional startup—but it feels real. That’s intentional. It was designed to simulate the exact kind of high-risk, high-impact, mission-driven environment that risk managers must navigate in the real world. It’s also the stage upon which all of your work in this practicum will unfold.

SMDC is not building a toy app or a convenience tool. It’s building a **data platform for chronic care**—a dashboard and repository to help people with **Type 1 and Type 2 diabetes** manage their health more effectively, with less confusion and more control.

Its mission is simple:

Give patients control over their data. Help clinicians support them. Bridge the gap with technology.

Its reality is far more complex.

As with many health-tech startups, SMDC is caught in a **collision zone**: between innovation and regulation, between business growth and patient safety, between user experience and clinical standards. It has passionate founders, great ideas, and early traction—but it also faces a long list of risks and constraints that could derail or reshape the project.

In this chapter, we’ll explore:

- The startup’s **mission and context**
- Its unique **risk landscape** across technical, clinical, regulatory, and financial dimensions
- The **constraints** that define its operating boundaries
- Why this project provides the ideal environment to simulate risk management in practice

The Origin Story: Why SMDC Exists

Diabetes is one of the most **data-intensive, patient-managed** chronic conditions in the world. Millions of people—some as young as 5 or 6 years old—monitor their blood sugar levels multiple times per day, adjust their insulin doses, track their meals and exercise, and attempt to keep their body in a healthy range using fragmented tools, legacy apps, or simple guesswork.

The SMDC founders—one a software engineer, one a data scientist, and one a former healthcare policy analyst—believed there had to be a better way. Their idea: build a **central platform** that integrates data from multiple devices, gives patients and clinicians a shared dashboard, and uses intelligent alerts to prevent dangerous highs or lows.

But good ideas don’t make good startups. Execution does—and that’s where risk begins.

SMDC’s Project Vision

- **Product:** A cloud-based dashboard that displays blood glucose trends, insulin delivery history, physical activity, meal logs, sleep, and more—drawn from wearable devices and manual input.
- **Users:** Type 1 and Type 2 diabetics, caregivers, clinicians, and possibly school nurses.
- **Scope:** MVP (minimum viable product) for 50 patients and 3 partner clinics within 6 months.
- **Team:** 7-person core team: 3 engineers, 1 product lead, 1 clinician advisor, 1 marketing lead, 1 part-time regulatory consultant.
- **Funding:** \$250,000 in seed funding from angel investors.
- **Technology stack:** Python backend, Google Cloud, React frontend, custom device integration APIs.

Constraints: What SMDC Can’t Change (Yet)

A startup’s freedom is an illusion. Yes, founders can move fast and make bold decisions—but they do so **within a box** defined by hard limits.

Here are SMDC's early-stage constraints:

Time Constraint

- The MVP must be launched within **6 months** to maintain investor interest and hit clinical trial timelines.

Budget Constraint

- The startup has only **\$250,000** in pre-seed funding.
- Hiring is limited; most contributors are working for equity or reduced salaries.
- Cloud computing, data storage, and legal fees eat into operating runway.

Regulatory Constraint

- The product touches **protected health information (PHI)**.
- It must be **HIPAA-compliant**, and possibly subject to **FDA regulation** if it's classified as a clinical decision support tool.

Device Integration Constraint

- Many diabetes devices (e.g., insulin pumps, continuous glucose monitors) are **closed systems** with limited APIs.
- Reverse engineering or third-party adapters introduce liability and delay.

Team Capacity Constraint

- The team is **small** and overcommitted.
- They lack full-time legal, regulatory, or clinical support.
- One key developer is responsible for three systems.

Data Ownership Constraint

- Manufacturers often claim ownership of patient data streams.
- Patients may not know how to export or use their own data.
- Interoperability is a legal, technical, and ethical minefield.

Startup Risks: What Might Go Wrong

While constraints define the boundaries, **risks define the terrain inside the map**. Here are the major early-stage risk categories for SMDC, each of which will be explored through milestone scenarios later in the book.

Technical Risks

- API instability with third-party devices
- Data accuracy discrepancies from sensors
- Delays in building data visualization or export tools
- Poor user experience causing drop-off

Regulatory and Legal Risks

- Misclassification by the FDA triggering a longer approval process
- Security breaches or HIPAA noncompliance
- Lawsuits from device manufacturers over data scraping

Financial Risks

- Burning runway too quickly due to underestimated development costs
- Failing to secure follow-on funding after MVP
- Cost overruns in legal or compliance domains

Clinical and Safety Risks

- False alerts leading to panic or missed interventions
- Misinterpretation of glucose trends by patients or parents
- Clinicians refusing to adopt tool due to liability or workload

Market and Adoption Risks

- Patients rejecting the product due to complexity or fear
- Clinicians resisting new tools that disrupt existing workflows
- Competitors launching a similar product with more resources

Team and Organizational Risks

- Key contributor burnout or resignation
- Conflict between founders over product direction
- Misalignment between product and patient needs due to lack of feedback loops

Why This Case Is Ideal for a Risk Practicum

SMDC is not just a theoretical case—it's a living system filled with the same ambiguity, tradeoffs, tensions, and moral weight that real risk managers face every day.

- It has **constraints** that are real and unavoidable.
- It has **risks** that are dynamic, multidimensional, and interconnected.
- It has **stakeholders** who care deeply—and who may strongly disagree.
- It has **momentum**, but also **fragility**. The difference between success and failure may come down to a few early decisions.

In short, it is the **perfect laboratory** to learn how to:

- Identify and categorize risks
- Analyze impact and probability
- Build stakeholder-aligned controls
- Use both qualitative and quantitative analysis
- Collaborate under pressure

What You'll Do With SMDC

In the chapters ahead, you and your team will act as risk managers working alongside SMDC's founding team. You'll complete twelve hands-on milestone tasks that mirror the real-world risk lifecycle—from identification to control design to response planning.

You'll simulate strategy meetings. Draft stakeholder checklists. Conduct root cause analysis. Prioritize interventions. And, ultimately, **build a full risk mitigation portfolio** that could serve a real startup.

Final Thought

If SMDC succeeds, it won't be because they had no risks. It will be because they **knew what they were**, acted on them early, and

built a culture that embraced uncertainty without being paralyzed by it.

This is your job now:

Don't eliminate all risk. That's impossible.

Learn how to see it. Frame it. Talk about it. Act on it.

And most importantly—help others do the same.

Let's get started.

2.3: Chapter 3- Managing Diabetes in a Data-Driven World- What Risk Thinkers Need to Know

A Primer for CIS 95C: Risk Assessment and Mitigation – A Practicum

Introduction: When Patients Become Project Managers

In most healthcare settings, patients wait for instructions. But in the world of diabetes, **patients become the project managers of their own lives**—coordinating data, technology, behavior, and decision-making, day after day.

Every person with diabetes must manage risk in real time—often with incomplete information, under stress, and with consequences that range from mild discomfort to medical emergency. Unlike other chronic diseases, diabetes requires moment-to-moment vigilance and strategic control over variables like food, insulin, activity, and stress.

If you're designing a digital solution for this population—like the SMDC dashboard—you need more than good tech. You need **risk awareness**, systems thinking, and empathy. This article will help you understand:

- What diabetes is (medically and behaviorally)
- How it affects decision-making and daily life
- Why designing for this population requires structured, early-stage risk planning

The Endocrinology of Diabetes: What's Actually Happening?

At its core, diabetes is a disorder of the **endocrine system**, which regulates hormones in the body. Specifically, diabetes involves **insulin**, a hormone produced by the pancreas that helps cells absorb glucose (sugar) from the bloodstream to use for energy.

In a healthy person

1. You eat food → glucose enters your bloodstream
2. The pancreas releases insulin → glucose moves into your cells
3. Blood sugar stabilizes

In a person with diabetes

- Either the body **doesn't produce insulin** (Type 1),
- Or the body **can't use insulin effectively** (Type 2),
- Resulting in **high blood glucose levels** that can damage organs, blood vessels, and nerves over time

The hormonal miscommunication affects **every system in the body**, from brain clarity to circulation to immune response. Poorly managed diabetes can lead to blindness, kidney failure, heart disease, amputations, and death.

Types of Diabetes: Two Roads, One Struggle

Type 1 Diabetes

- Autoimmune condition: the immune system attacks insulin-producing cells
- Usually diagnosed in children, teens, or young adults
- Requires **lifelong insulin therapy** via injection or pump
- Involves constant monitoring and adjustment
- Life-threatening if insulin is missed

Think of Type 1 as a full-time job where **one mistake can lead to hospitalization**.

Type 2 Diabetes

- Metabolic condition: the body becomes resistant to insulin or doesn't produce enough
- Most common in adults (but rising in teens)
- Can sometimes be managed through diet, exercise, oral medications—or may require insulin
- Progresses over time, often silently

Type 2 is like managing an invisible machine: **when it malfunctions, the damage may be hidden—until it's not**.

Despite differences, both types require **data, decisions, and discipline**.

The Daily Reality: What Patients Actually Do

To manage diabetes well, a patient may need to make **100–200 micro-decisions per day**. These decisions involve balancing **glucose, insulin, activity, and food**—under emotional, environmental, and financial stress.

Here are just some of the tasks:

Diabetes Management Tasks

Task	Purpose
Check blood glucose (3–10x/day)	Know if blood sugar is too high or low
Count carbs in meals	Estimate insulin or anticipate spikes
Adjust insulin dosage	Prevent dangerous highs/lows
Monitor stress, sleep, hormones	These all affect blood sugar
Sync devices and apps	Pull data from CGMs, fitness trackers, meal logs
Respond to alerts or crashes	Avoid fainting, seizures, or ER visits
Communicate with doctors	Share data, ask for prescription changes
Manage supplies	Order strips, syringes, pump parts, backups

And all of this happens **on top of work, school, relationships, and daily life**.

The Data Problem

Managing diabetes is **impossible without data**. But in most cases, that data is:

- **Fragmented** – spread across apps, devices, and handwritten notes
- **Delayed** – only reviewed during infrequent clinical visits
- **Uninterpreted** – raw numbers with little guidance
- **Emotionally charged** – tied to feelings of failure, shame, or anxiety

For example, a person may receive a glucose alert at 3 a.m.—but not know *why* it happened, what to do, or how to prevent it next time.

Without integrated tools, patients are forced to act as **human dashboards**, mentally calculating their own risk without system support.

The Social Dimension: Not Just Science—Society

Effective diabetes management is shaped not only by biology and data—but also by **context**:

- **Food and culture** – Meals are emotional, spiritual, social
- **Technology access** – Many cannot afford the best devices or Wi-Fi needed for syncing
- **Housing and privacy** – Some patients can't refrigerate insulin or inject safely
- **Language barriers** – Instructions may be in English only, or full of jargon
- **Systemic inequity** – Black, Indigenous, and Latino communities experience **higher rates of complications** due to poverty, stress, and healthcare access gaps

Even the most well-designed app can fail **if it ignores these realities**.

What Is SMDC Trying to Build?

In this practicum, you'll be working inside a simulation of **SMDC (Self-Managed Diabetic Care Inc.)**, a startup building:

- A **dashboard** that integrates health data from multiple devices
- Personalized visualizations and alerts
- A shared platform for patients and clinicians to track and improve care
- A mission-driven company focused on **trust, equity, and patient empowerment**

SMDC is visionary—but it's a startup. That means:

- Limited budget
- Tight timelines
- Regulatory uncertainty
- Cross-functional miscommunication risks
- High stakes for user safety

You are now joining the team as a **risk analyst**.

Why Risk Management Starts Now

You can't build a product for people with complex needs **without understanding the risks involved**. Some are obvious (data breach). Others are subtle (user confusion, delayed device data, unclear visuals, clinician distrust).

In this course, your job is to **structure those risks clearly**—before the team charges ahead.

You will begin with **Milestone 1**, where you'll create a **Risk Breakdown Structure (RBS)** for the SMDC project. It's a visual map that organizes different types of risks—technical, clinical, operational, financial—so the team knows what's coming, where to focus,

and what to do next.

Key Takeaways Before You Begin Milestone 1

- **Diabetes is complex**, and no two patients manage it the same way
- **Data is essential—but fragmented, emotional, and overwhelming**
- **Risk shows up in both obvious and hidden places**: delayed alerts, API errors, equity blind spots
- **SMDC needs your help** to structure, organize, and plan for risks before they're overwhelmed by them
- **Your job in Milestone 1** is to step into the role of risk leader: ask better questions, structure complexity, and help the team see clearly

“Risk isn’t a surprise. It’s a structure. The sooner you see it, the more power you have to do something about it.”

Now, it’s your turn.

Turn the page. Your first **Scenario Briefing** is waiting.

This page titled [2.3: Chapter 3- Managing Diabetes in a Data-Driven World- What Risk Thinkers Need to Know](#) is shared under a [CC BY 4.0](#) license and was authored, remixed, and/or curated by Sukhjot "Bob" Singh.

2.4: Chapter 4- Building SMDC- The Real-World Challenges of Launching a Health-Tech Startup in a High-Stakes Environment

A Deep Dive for Risk Thinkers in CIS 95C: Risk Assessment and Mitigation – A Practicum

Introduction: The Promise—and Pressure—of Starting Up in Health Care

SMDC (Self-Managed Diabetic Care Inc.) is more than a business idea. It's a mission to support millions of people living with diabetes by giving them the tools to understand, manage, and communicate their health—day to day, hour to hour.

But SMDC isn't just launching a product. It's launching a company. A platform. A culture. A promise.

And that means one thing:

Everything SMDC does carries risk. Not just technical risk—but strategic, operational, regulatory, financial, human, and ethical.

This article outlines—in exhaustive detail—the real challenges SMDC faces as a health-tech startup entering a high-risk, high-impact sector. Each section is designed to help you, the future risk strategist, think **critically**, **systematically**, and **empathetically** about the uncertainty the team must navigate.

You will return to these concepts throughout the CIS 95C practicum. This is your foundation.

Time, Money, and Scope: The Startup's Perpetual Tug-of-War

SMDC is operating under classic startup constraints. But in health tech, these tensions are even more dangerous because **errors don't just waste money—they may compromise patient safety or regulatory compliance.**

Time Pressures

- SMDC has committed to a **Minimum Viable Product (MVP)** within 6–8 months
- Clinical pilots with advisors and user feedback cycles are scheduled
- Each sprint delay compresses testing, feedback, and release readiness
- The team must balance **speed** with **precision** in feature development

If SMDC misses a critical timeline, they don't just disappoint users—they may lose funding, delay insurance partnerships, or violate contractual deadlines with device vendors.

Budget Constraints

- SMDC is funded by **seed capital**, which must cover:
 - Engineering salaries
 - Legal/regulatory consultation
 - Product testing
 - Data infrastructure
 - UX design and accessibility review
 - Partnership development
 - Unexpected costs (e.g., security audits, ADA compliance updates, vendor API changes) can strain or exhaust their

funding runway

Every unscoped feature or technical misstep has a dollar impact—and there's no financial cushion.

Scope Tension

- Founders want to include:
 - Glucose data integration
 - Physical activity tracking
 - Medication reminders
 - Food log visualizations
 - Multilingual alerts
 - Clinician-sharing features
- But not everything fits into the first release
- Scoping requires **hard tradeoffs**—cutting features that excite investors or advisors to preserve launch integrity

The team must prevent “scope creep,” which is when exciting ideas get added late—without capacity, clarity, or downstream impact planning.

Building in a Regulated Industry: Risk with Rules

Launching in **health care** means designing under the eye of regulatory, ethical, and legal watchdogs. SMDC's dashboard will interact with **protected health information (PHI)**, real-time biological data, and potentially life-affecting alerts.

HIPAA Compliance

- All patient data must be stored, transmitted, and accessed in accordance with U.S. law
- Even temporary logs or internal test databases must be encrypted
- Consent protocols and breach reporting rules must be enforced
- Penalties for failure: fines, shutdowns, lawsuits, reputational damage

FDA Software as a Medical Device (SaMD) Classification

- If SMDC's platform claims to **guide clinical decisions**, it may fall under FDA scrutiny
- Tools like insulin dose recommendations or predictive alerts could trigger SaMD review
- Approval requires:
 - Clinical validation
 - Controlled trials
 - Transparent risk modeling
 - Time-consuming paperwork

SMDC must decide: stay in the “wellness tool” space—or pursue regulated clinical-grade impact?

Data Governance and Trust

- Patients must be able to delete their data
- Partners (e.g., clinics or insurers) may demand data-sharing contracts
- SMDC will need:
 - Role-based access control
 - Logging/auditing mechanisms
 - Disaster recovery planning
 - Transparent privacy policies

These systems take time and money—but skipping them is not an option.

Cross-Functional Team Misalignment

Startups attract brilliant people from different fields. At SMDC, that includes:

- Full-stack engineers
- UX designers
- Clinical advisors
- Data scientists
- Regulatory consultants
- Founders with startup experience but limited healthcare exposure

This creates tension.

Misaligned Mental Models

- Engineers think in systems
- Clinicians think in patient safety
- Designers think in empathy
- Product leads think in roadmaps
- No one automatically understands each other's language, risks, or workflow

Coordination Bottlenecks

- Who signs off on medical information display?
- Who decides if a clinician-sharing feature is HIPAA-safe?
- Who resolves conflicting feature feedback from patients vs. clinicians?

Without a structured risk culture, these silos create **slowdowns, duplications, missed warnings, and last-minute redesigns**.

Technical Risk and Infrastructure Fragility

SMDC's dashboard depends on **external APIs, device interoperability**, and **cloud infrastructure** to:

- Collect data from glucose monitors, wearables, fitness trackers
- Sync in real time or near real time
- Handle outages, updates, and user syncing errors
- Provide backup access to historical trends

Risks include:

- Device manufacturer changes API access
- Sync failures with older devices
- Low signal areas (rural homes, schools, subways) disrupt uploads
- Real-time alerts are delayed due to server lag
- App crashes and data loss cause patient distrust

Any technical failure has a downstream **emotional and clinical impact** on patients who rely on this tool.

User Complexity: You're Not Designing for One "User"

There is **no such thing as a "typical" person with diabetes**. Users vary across:

- Age (children, adults, elders)
- Language and literacy
- Tech fluency
- Health literacy

- Emotional relationship with disease
- Access to insulin, devices, or supportive clinicians
- Trust in medical systems (especially for marginalized populations)

Design Risks:

- Font sizes too small for vision-impaired users
- Charts that are misread and cause panic
- Overly complex onboarding screens
- Alerts that become white noise due to poor timing
- English-only UX for a multilingual population

Risk-aware UX design isn't about adding features—it's about preventing misinterpretation, shame, or disengagement.

Stakeholder Complexity and Strategic Conflict

SMDC must balance the needs and expectations of:

- **Patients** – Safety, simplicity, empathy
- **Clinicians** – Data clarity, documentation, liability boundaries
- **Investors** – Speed, traction, defensibility
- **Regulators** – Compliance, transparency, patient safety
- **Device manufacturers** – Brand alignment, permissions
- **Insurers or payers** – Outcomes, cost justification, risk scoring

Each group defines **risk differently**:

- Patients fear feeling overwhelmed or being blamed
- Clinicians fear alerts causing liability
- Investors fear burn rate and missed timelines
- Regulators fear patient harm
- Insurers fear fraud or overuse

SMDC must choose its messaging, features, and metrics **with clarity and priority**—or risk alienating everyone at once.

Organizational Culture and Early Habits

Finally, the most invisible risk: **how the startup behaves internally**.

Early habits become permanent.

- If feedback is undocumented → no audit trail
- If roles are unclear → accountability gaps
- If "move fast" trumps "ask questions" → silent errors compound
- If burnout becomes normalized → decision quality plummets

Risk-aware startups:

- Set meeting rhythms that surface tradeoffs
- Document decisions and rationale
- Design communication norms that value "calling out" uncertainty
- Encourage early-stage conflict—not late-stage regret

SMDC's internal risk culture will shape not just what it builds—but whether it survives.

Conclusion: You're Not Just Here to Observe—You're Here to Help

SMDC's vision is bold. Their team is passionate. But passion is not a risk strategy.

You are now part of that strategy.

Your job is to:

- Ask hard questions early
- Map risks clearly and categorically
- Help prioritize what needs attention now vs. later
- Serve as a structural thinker in a dynamic environment

In Milestone 1, you'll begin by organizing all the risks SMDC faces into a **Risk Breakdown Structure (RBS)**—a visual model of categories and examples that will serve as the basis for every milestone ahead.

This is your first test as a risk professional.

You're not here to slow the team down.

You're here to help them see what they're missing—before it's too late.

3: PART II- RISK PRACTICUM - MILESTONES 1 TO 12

Practicing Risk, Not Just Learning It

This section is the heart of your hands-on learning journey. In **Part II of the textbook**, readers move from theory to action through **12 immersive milestone modules**, each simulating a real-world challenge within a fictional yet realistic health-tech startup, **Self-Managed Diabetic Care Inc. (SMDC)**.

Through these scenario-based milestones, learners take on the roles of **project managers, product leads, clinical designers, and risk strategists**, developing the ability to recognize, assess, and respond to uncertainty in complex, data-driven environments. Each milestone exposes learners to **ambiguous decisions, cascading consequences, conflicting priorities, and strategic judgment calls**—mirroring real-life professional challenges in risk-laden projects.

The **seven-stage structure** used across all milestones ensures that students:

- Receive realistic scenarios
- Design strategic responses using targeted tools
- Produce professional-grade deliverables
- Apply frameworks from curated toolkits
- Reflect critically on decisions made
- Conduct quality control reviews
- Wrap up with documentation and insights

From mapping risk and impact matrices to building control checklists and decision trees, each milestone aligns with a critical phase of the **project risk management lifecycle**. Learners work either independently or in teams to produce a **portfolio-ready body of work**, including a risk register, strategy maps, stakeholder models, and contingency plans.

By the end of Part II, students will not only demonstrate their applied knowledge but will also grow into thoughtful, risk-aware professionals—ready to lead teams through uncertainty with clarity, structure, and confidence.

3.1: Introduction- Practicing Risk, Not Just Learning It

3.2: Milestone 2 – Defining Impact- Risk Impact Matrix

3.3: Milestone 3 – Validating Assumptions- Delphi Technique

3.4: Milestone 5 – Diagnosing Root Causes- Fishbone Diagram

3.5: Milestone 7 – Designing Responses- Business Model Canvas (Part I)

3.6: Milestone 8 – Cross-Segment Risk Integration- Business Model Canvas (Part II)

3.7: Milestone 9 – Prioritizing Risk Controls- Risk Program Areas

3.8: Milestone 10 – Decision Analysis for Control Selection

3.9: Milestone 11 – Developing and Updating Risk Responses

3.10: Milestone 12 – Using Statistics to Understand and Mitigate Risk

3.11: Milestone 1 – Structuring Risk- Risk Breakdown Structure (RBS)

3.12: Milestone 4 – Creating Controls- Checklist Analysis

3.13: Milestone 6 – Strategic Framing- SWOT Analysis

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3.1: Introduction- Practicing Risk, Not Just Learning It

Introduction

This section of the book is where you stop reading about risk—and start *doing* it.

In Part II, you will complete **12 structured milestone modules**, each simulating a real-world scenario inside the world of **Self-Managed Diabetic Care Inc. (SMDC)**—a health-tech startup developing a dashboard and data platform for individuals with Type 1 and Type 2 diabetes.

Each milestone presents you with a realistic challenge that project managers, product leads, clinical designers, or risk strategists might face during a high-stakes, data-driven launch. These challenges are not puzzles with one right answer. They are **scenario-based risk encounters**, designed to surface:

- Realistic ambiguity
- Competing priorities
- Cascading consequences
- Strategic decision points
- The need for thoughtful communication under uncertainty

Each milestone is organized using a **seven-stage structure** that reflects how professionals actually move through high-stakes decision-making. You will:

- Receive a **Scenario Briefing** (realistic prompt or memo)
- Craft an **Action Strategy** using the appropriate tool
- Produce a **professional deliverable**
- Draw from curated **Toolkits and Templates**
- Complete a **Critical Reflection** to deepen your learning
- Run a **Quality Control Review** before submission
- Conclude with a **Final Wrap-Up** for documentation and submission

You may complete these milestones as part of a collaborative team or as an independent analyst. In both cases, the goal is the same: to strengthen your ability to anticipate, structure, communicate, and respond to project risks across the entire lifecycle.

What You Can Expect from the Milestone Arc

Each milestone corresponds to a **distinct phase or competency** in project risk management. Collectively, they mirror the evolution of a real-world project—from early risk identification to strategic planning to decision modeling and final reflection.

Below is an overview of the 12 milestones, what each one simulates, and what you'll learn or build in the process.

Milestone 1 – Structuring Risk: Building a Risk Mapping Tree

You'll learn how to scope and structure risks at the beginning of a project using the **Planning Meeting and Analysis** technique. Your deliverable will be a **Risk Mapping Tree (Risk Breakdown Structure)** that organizes risk categories across domains like scope, cost, schedule, communication, regulation, and more.

You'll gain: Clarity in framing risks early and visually.

Milestone 2 – Assessing Risk Impact: Designing an Impact Matrix

Using the risks identified in Milestone 1, you'll prioritize them using a **customized Impact Matrix**. This tool helps assess probability, impact, and urgency across stakeholder dimensions.

You'll gain: Practice in comparative analysis and early prioritization.

Milestone 3 – Validating Risk Assumptions: Expert Consensus Simulation

You'll simulate the **Expert Consensus (Delphi) Technique**, inviting multiple perspectives to weigh in on which risks are most critical. This milestone models how distributed teams or SMEs contribute to risk prioritization.

You'll gain: Tools for surfacing blind spots and validating stakeholder concerns.

Milestone 4 – Designing Preventive Controls: Control Checklist Creation

Here, you'll create a **Control Checklist** for a key risk domain (e.g., data accuracy or clinician engagement). This milestone emphasizes **prevention as design**, asking you to specify roles, actions, and timing for each control.

You'll gain: Structure for preemptive safeguards and audit-ready planning.

Milestone 5 – Diagnosing Root Causes: Building a Cause Tracer Diagram

You'll conduct a **root cause analysis** using the **Cause Tracer (Fishbone) Diagram** and the 5 Whys technique. Rather than just reacting to symptoms, you'll dig into what's beneath major risks—especially those related to UX failure, team misalignment, or system breakdowns.

You'll gain: Depth in diagnosing and resolving complex, systemic risk drivers.

Milestone 6 – Strategic Contextualization: TOWS Risk Framing

Here, you'll frame risks within a **strategic SWOT/TOWS grid**, focusing on how strengths and opportunities can be leveraged to reduce threats and weaknesses. You'll explore how SMDC can balance bold innovation with structural risk controls.

You'll gain: Strategic pattern recognition and framing fluency.

Milestone 7 – Stakeholder Risk Modeling: Mapping a Patient-Facing BMC

You'll build a **Strategy Alignment Map** based on the Business Model Canvas for SMDC's patient segment. Your task is to identify risks by function (e.g., Channels, Revenue Streams, Value Proposition) and propose early response ideas.

You'll gain: Stakeholder-centered risk analysis grounded in business model logic.

Milestone 8 – Cross-Sector Integration: Mapping Insurer and Clinical Risks

You'll repeat the process from Milestone 7—but this time from the perspective of a different stakeholder (e.g., insurers or clinical partners). Then you'll perform **risk de-duplication** and identify shared risks across actors.

You'll gain: A systemic view of stakeholder interdependence and cascading risks.

Milestone 9 – Program-Level Planning: Prioritizing Controls by Area

This milestone introduces **quantitative thinking**. Using your risk register, you'll assess the **cost of control** across major program areas and select the top five for focused action.

You'll gain: Exposure to cost-benefit logic and resource-constrained planning.

Milestone 10 – Decision Modeling: Tree-Based Risk Response Planning

You'll construct a **Choice Pathway Diagram (Decision Tree)** to explore whether to mitigate a high-cost risk, defer it, or accept it with conditions. Your model will include downstream risk triggers and the cost of mitigation failure.

You'll gain: Confidence in modeling and communicating risk tradeoffs.

Milestone 11 – Designing and Documenting Contingency Plans

You'll create a **Risk Response Playbook** that includes primary responses, fallback plans, and triggers for escalation. This milestone emphasizes judgment, realism, and phased communication.

You'll gain: Tools to prepare for high-consequence risks with resilience.

Milestone 12 – Using Statistics to Validate and Refine Risk

You'll conduct a **Numeric Exposure Review** using spreadsheets, scatterplots, or histograms. This milestone encourages the use of basic statistical tools to visualize where risk frequency, magnitude, or concentration might inform your mitigation approach.

You'll gain: Quantitative fluency for pattern validation and exposure modeling.

What Happens After the Milestones?

After completing all 12, you will have produced:

- A full-stack risk register
- A stakeholder-informed risk prioritization model
- A control checklist
- Two complete strategy maps
- A quantified decision model
- A personal risk leadership reflection

These deliverables can form part of a **project portfolio**, capstone submission, or interview artifact for internships and professional pathways.

You'll also reflect on your growth as a risk-aware professional: someone who doesn't just flag issues, but helps teams move through uncertainty with clarity and confidence.

3.2: Milestone 2 – Defining Impact- Risk Impact Matrix

Welcome Back, Risk Strategist

Your RBS (from Milestone 1) laid the groundwork. Now, it's time to **turn insight into action**.

This milestone challenges you to **answer the hardest question in risk management**:

“Out of everything that could go wrong... what should we actually focus on right now?”

In real projects, you never have unlimited time or resources. So you'll need to **prioritize the most pressing, damaging, and high-stakes risks** using a tool professionals swear by—the **Risk Impact Matrix**.

You'll also write a **short summary memo** that highlights the **top 3–5 themes** SMDC leadership should focus on right away. Your insights will influence sprint planning, investor briefings, and which controls get built next.

Tool Applied: Risk Impact Matrix

Final Output: Visual Risk Matrix + Risk Themes Summary Memo

Scenario Briefing

Internal Memo

To: Risk Management Team – Embedded Analysts
From: Kira L. Joshi, COO, SMDC
Date: Week 3 – Risk Prioritization Phase
Subject: Request for Prioritized Risk Profile Using Impact Matrix

Team,

Thank you for delivering the Risk Breakdown Structure (RBS) last week. It gave us our first clear picture of where uncertainty and vulnerability live across our SMDC dashboard initiative. Engineering, UX, and Clinical have already used it to start sprint planning and discuss alert design constraints.

But we now need to go deeper.

The RBS shows us where risk exists. What we need next is a decision-making lens for understanding which risks matter most—now. We're on a tight build timeline and don't have the resources to address every single risk at once.

Please use a Risk Impact Matrix to analyze, compare, and prioritize the items from your RBS. Your job is to help the team:

- Understand which risks are likely to materialize
- Estimate how damaging they would be across core project pillars
- Identify 3–5 priority themes to guide deeper planning and mitigation

You'll need to assess likelihood, impact, and exposure across several domains—technical performance, regulatory status, user safety, financial exposure, reputational damage, and social equity.

We will use your output to:

- Sequence our design sprints
- Inform investor risk disclosures
- Begin selecting control strategies

You're not just flagging risks anymore. You're helping us decide what to do about them.

—Kira

Action Strategy

Purpose of This Milestone

This milestone transitions your work from categorization to prioritization. In Milestone 1, you identified what could go wrong. In Milestone 2, you'll determine which risks should command the team's attention first.

You'll do this using two powerful tools:

- A Risk Impact Matrix to compare risk severity
- A Risk Theme Memo to communicate which risk clusters are most urgent, sensitive, or high-cost

Step-by-Step Guide

Step 1: Review Your RBS (Milestone 1)

- Open your Risk Breakdown Structure (Milestone 1)
- Highlight or extract 15–20 Level 3 risk items for initial scoring
- Choose a representative spread—covering different domains, types, and assumptions

If working as a team:

- Divide the risks by theme (e.g., clinical, UX, infrastructure, regulatory)
- Have each person lead the scoring conversation for their cluster

Step 2: Define Impact Dimensions

You will assess each risk along two axes: Likelihood and Impact, scoring across six lenses:

1. **Technical Impact** – Product failure, system crash, data corruption
2. **Clinical Impact** – Patient confusion, alert misinterpretation, potential harm
3. **Regulatory Impact** – HIPAA violations, FDA penalties, compliance delays
4. **Financial Impact** – Cost overruns, lost funding, rework costs
5. **Reputational Impact** – Loss of trust from patients, investors, partners
6. **Equity Impact** – Marginalized users excluded, language/UX barriers

Assign:

- Likelihood Score (1–5) – Probability of occurrence
- Impact Score (1–5) – Severity across each dimension

Rubric:

1 = Low: Unlikely and limited impact

2 = Mild: Manageable but visible

3 = Moderate: Interruptive and reputationally concerning

4 = High: Requires redesign, funding risk, legal flags

5 = Severe: Systemic failure, patient harm, or project derailment

Step 3: Build the Matrix

- Rows: Each risk

- Columns: Risk name, Likelihood, six impact dimensions, Total Weighted Score, Notes
- Highlight highest total exposure
- Flag outliers with high single-domain scores

Step 4: Visualize Risk Zones (Optional)

Use a 2x2 or 3x3 matrix to map risks into quadrants:

Risk matrix for classifying risks by likelihood and impact to determine priority level.

The Likelihood		
	High Impact	Low Impact
High Likelihood	Top priority risks	Process risks
Low Likelihood	Rare but severe risks	Low-priority risks

Color-code:

- Red = High priority
- Yellow = Monitor
- Gray = Acceptable or defer

Step 5: Synthesize Risk Themes

- Identify patterns or clusters
- Determine cross-domain risks
- Write a short memo naming 3–5 high-priority risk themes with reasoning and suggested responses

Your Deliverable

Part 1: Risk Impact Matrix

- Include 15–20 risk items from RBS
- Score likelihood and six dimensions
- Highlight high exposure risks

Part 2: Visual Quadrant (Optional)

- 2x2 or 3x3 visual with color codes

Part 3: Risk Themes Summary Memo

- 3–5 emergent risk themes with explanations and next steps

Toolkits and Templates

- [Risk Matrix Template](#)
- [Sample Impact Scoring Rubric](#)
- [Visual Quadrant Template](#)
- [Milestone 1 RBS File](#)

- [Sample Risk Theme Memo](#)
- [Impact Weighting Guide](#)

Critical Reflection (Required)

Write 150–250 words addressing:

- Most challenging dimension to score
- Shifts after pattern analysis
- Most useful insights for leadership
- Lessons learned in risk triage and prioritization

Quality Control Review

- At least 15 risks scored across all categories
- Clean, consistent formatting
- Memo includes 3–5 risk themes
- Reflection addresses process and insight

Final Wrap-Up and Submission

Your submission will be reviewed and reused in Milestones 4, 9, and 10. This is where your risk analysis starts shaping real decisions.

3.3: Milestone 3 – Validating Assumptions- Delphi Technique

Validating Risk Perception: Stakeholder Consensus for Risk Clarity

Tool Applied: Expert Consensus Method (Delphi-Inspired)

Final Output: Stakeholder-Informed Risk Summary with Priority Themes and Alignment Map

Welcome to the Human Side of Risk

You've structured the risks. You've prioritized them.

Now comes the real challenge: **what do other people think?**

Milestone 3 is your chance to step into the role of a **interpreter, listener, and facilitator**. Risk isn't just about spreadsheets—it's about perception, emotion, and perspective. Different stakeholders see the same risk in very different ways.

Your job? Gather those viewpoints, make sense of the disagreements, and help the organization see **what's aligned, what's misunderstood, and what's being quietly ignored**.

This milestone helps you **build trust and clarity—not by being the loudest voice in the room, but by structuring the conversation well**.

Scenario Briefing

MEMO

To: Embedded Risk Strategy Team

From: Kira L. Joshi, Chief Operating Officer, SMDC

Date: Week 4 – Early Sprint Risk Alignment

Subject: Request for Stakeholder-Informed Risk Validation and Priority Ranking

Team,

Thank you for your work on the RBS and Impact Matrix. The visibility you've created has already influenced key sprint decisions and generated important discussions in our leadership team. But we all know that early-stage risk assessments are vulnerable to bias, blind spots, and one-dimensional thinking.

To build true confidence in our priorities, we need to validate our current risk assessments using feedback from across SMDC. We've already seen signals of misalignment—for example, Product is less concerned about compliance delays than our regulatory consultant, and Engineering is raising integration concerns that UX hasn't flagged.

I'm asking your team to lead a structured, cross-stakeholder prioritization round. Use a simple consensus method (inspired by Delphi) to collect, synthesize, and analyze how different roles rank and understand our top risks. Your work should result in a refined list of priorities, clearly annotated with patterns of agreement and disagreement.

In a nutshell - We need to test those assumptions by hearing directly from across SMDC. Use a simple, structured method to collect how different roles perceive our top risks. Find where people agree, where they quietly disagree, and where we may be underestimating trouble.

We need to see:

- Where alignment exists
- Where stakeholders are silently misaligned
- Which risks are underestimated or misunderstood
- What themes should move forward into design, mitigation, or escalation

Treat this milestone as a risk intelligence scan—one that balances logic with listening.

Kira

Action Strategy

Purpose of This Milestone

This milestone is your first opportunity to directly simulate one of the most valuable skills in professional risk leadership: the ability to guide groups toward clarity—**not through authority, but through structure**.

You will use a form of expert consensus, inspired by the Delphi technique, to refine your understanding of risk rankings based on multi-role feedback. The goal is not to reach perfect agreement, but to uncover patterns, contradictions, and tensions in how risk is understood across functions.

You will use this to build a stakeholder-informed map of high-priority risk themes that reflect the organization's true vulnerabilities—not just your initial impressions.

Step-by-Step Guide

Step 1: Select Your Stakeholder Panel

Begin by identifying the key perspectives that shape risk understanding at SMDC. Your panel should include at least three to five roles. Options include:

- Clinical advisor or care delivery representative
- Engineering lead
- UX/Design lead
- Product manager or operations team member
- Regulatory or legal advisor
- Patient advocate (optional but encouraged for solo learners)

If working in a team, assign each stakeholder to a team member to research and represent. If working independently, simulate multiple viewpoints using role briefs or stakeholder empathy sheets.

Step 2: Select Risk Items to Score

Choose a shortlist of 8 to 10 risks from your Milestone 2 matrix. Select a balanced mix that includes:

- High-impact/high-likelihood risks
- Risks with strong single-dimension impact (e.g., equity or compliance)
- Mid-tier risks that you suspect are controversial or misunderstood

Summarize each risk in 1–2 sentences with:

- A specific risk label
- The context and expected consequence
- Which RBS branch it originally came from

These summaries will be presented to each stakeholder for scoring.

Step 3: Develop a Scoring Rubric

Ask each stakeholder to score each risk on two axes:

1. **Perceived Likelihood (1-5)** – How likely is this risk to occur in your experience or judgment?
2. **Perceived Impact (1-5)** – If this risk occurs, how damaging is it to your role's priorities or the project?

You may also invite an optional third score:

3. **Confidence (1-5)** – How confident is the stakeholder in their rating of this risk?

For example, a clinician might rate a patient safety risk as high impact (5) but low likelihood (2), with medium confidence (3).

Stakeholders may score in writing, online, in person, or through simulation (if working independently).

Step 4: Collect and Compare Feedback

Gather scores from all stakeholder roles for each risk. Display results in a matrix or table format. Look for:

- Score convergence (tight agreement = alignment)
- Score divergence (wide ranges = disagreement or uncertainty)
- Discrepancy between perceived importance and actual domain ownership
- Gaps between initial team estimates and stakeholder impressions

If two stakeholders rate a risk similarly but provide **different reasons**, highlight that as a case of “false consensus.”

If one stakeholder rates a risk low but others rate it high, flag it as “silent conflict” or a “blind spot.”

Step 5: Synthesize and Name Priority Risk Themes

Group your risks into 3 to 5 themes based on:

- Common source domain (e.g., integration delays, UX confusion, alert fatigue)
- Shared concern across stakeholders
- Risk clusters with compounding consequences

For each theme:

- Name the theme (e.g., “Alert Interpretation Risk”)
- List the risks it contains
- Explain the stakeholder divergence or consensus
- Suggest what kind of planning attention it may need

These themes will be the building blocks for your control strategies, mitigation plans, and decision trees in future milestones.

Your Deliverable

Part 1: Stakeholder Risk Score Matrix

Create a table showing:

- Risk label and summary
- Each stakeholder's scores for likelihood and impact
- Confidence rating (if used)
- Final alignment notes or synthesis comments

This may be formatted in a spreadsheet or included in a written report.

Part 2: Consensus Mapping Summary

For each risk, classify it into one of the following categories:

- Strong Alignment
- Constructive Disagreement
- Silent Conflict
- False Consensus

Write a 3–5 sentence explanation per risk describing how stakeholder feedback altered or confirmed its priority level.

Part 3: Stakeholder-Informed Priority Risk Themes Memo

Write a 1–2 page memo summarizing:

- The 3 to 5 risk themes you identified
- Supporting risks and feedback patterns for each
- A short rationale for why these themes are most urgent
- A forward-looking note on what kind of planning may follow (e.g., mitigation, escalation, further modeling)

This memo should be professional and usable for leadership review.

Toolkits and Learning Resources

- [Planning Reference: Expert Consensus and Delphi Technique Overview](#)
- [Sample Stakeholder Profiles and Role Briefs](#)
- [Milestone 2 Risk Matrix](#)
- [Risk Scoring Rubric Template](#)
- [Feedback Synthesis Worksheet](#)
- [Risk Theme Naming Examples](#)

Critical Reflection

Answer the following prompts in 200–300 words:

- What did you learn from comparing risk perceptions across different roles?
- Where did your assumptions as an analyst match or diverge from stakeholder feedback?
- Which stakeholder surprised you the most—and why?
- What risks are more socially or politically difficult to name aloud?
- How does this experience change how you interpret alignment in group decision-making?

Quality Control Review

Before submission, verify:

- At least 8 risk items were scored by 3–5 stakeholders or perspectives
- Stakeholder perspectives were documented with notes or role justification
- Consensus summary includes classifications and rationale
- Risk themes are named, grouped, and justified in memo format
- Reflection is clear, specific, and self-aware
- All documents are titled and formatted consistently for submission

Final Wrap-Up and Submission

This milestone prepares you to become a **interpreter between teams**—someone who doesn't just speak risk, but helps others

surface and reconcile what they really think and fear.

You will reuse this synthesis in Milestone 4 (Control Design) and Milestone 6 (Strategic SWOT/TOWS), where themes become targets for response planning.

Submit your full synthesis bundle to your team folder or LMS dropbox as directed.

You are no longer working on risk—you are shaping the organization's ability to talk about it.

This page titled [3.3: Milestone 3 – Validating Assumptions- Delphi Technique](#) is shared under a [CC BY 4.0](#) license and was authored, remixed, and/or curated by Sukhjīt "Bob" Singh.

3.4: Milestone 5 – Diagnosing Root Causes- Fishbone Diagram

Diagnosing Root Causes: Uncovering What’s Beneath the Risk

Tool Applied: Cause Tracer Diagram (Fishbone/Ishikawa) and 5 Whys

Final Output: Root Cause Analysis Diagram and Root Cause Rationale Summary

Scenario Briefing

MEMO

To: SMDC Risk Strategy Team

From: Kira L. Joshi, Chief Operating Officer, SMDC

Date: Week 6 – Risk Remediation Planning

Subject: Request for Root Cause Analysis on Persisting High-Impact Risk Area

Team,

After reviewing the control checklists you delivered last week, one concern has come up repeatedly: we seem to be treating symptoms rather than underlying conditions. I’ve heard feedback from Engineering, Clinical, and Product that our dashboards, alerts, and processes still show signs of tension, even where controls exist. In several sprint retrospectives, we’ve captured issues that sound like this:

“Too many alerts are misfiring.”

“Data syncs inconsistently across devices.”

“Users aren’t responding to critical insights.”

“We’re fixing the same bugs repeatedly.”

These are not isolated failures. These are signs that **we haven’t reached the root.**

I need your help to trace one high-impact risk theme all the way down—to find the underlying causes, assumptions, or systemic breakdowns that keep fueling it. Use both visual and narrative cause analysis tools to show the difference between a surface symptom and a structural problem.

We’ll use your output to decide:

- Where to invest redesign
- Where to escalate
- Where to slow down, re-architect, or re-scope
- Where to accept failure as inherent and design around it

You have permission to go deep. The more uncomfortable and unspoken the root cause, the more valuable your analysis.

Let’s move from observation to transformation.

Kira

Action Strategy

Purpose of This Milestone

This milestone introduces you to **root cause analysis**—the practice of tracing risk events back to their origin points, behavioral

patterns, or systemic design flaws.

Most risk plans fail not because risks were invisible—but because teams only addressed **surface symptoms**. Without root cause work, risk plans get stuck in cycles of band-aids and rework.

You will use two integrated tools:

- A **Cause Tracer Diagram** (also called a Fishbone or Ishikawa Diagram) to visually map potential root causes across categories
- A **5 Whys Analysis** to interrogate one specific event or failure chain in depth

You'll learn how to:

- Distinguish symptoms from sources
- Identify systemic patterns hidden beneath isolated incidents
- Trace feedback loops and unspoken assumptions
- Create visual models of complex risk interactions
- Communicate technical or human root causes without blame

Your final product is a structured diagnostic that prepares your team for deep, cross-functional redesign or escalation.

Step-by-Step Guide

Step 1: Choose a Risk Theme or Event to Diagnose

Start by reviewing your previous milestones. Choose one high-priority risk theme or event that remains unresolved or difficult to control. Examples include:

- Patient Alert Confusion
- API Integration Delays
- Glucose Data Gaps
- Incomplete Clinician Onboarding
- Unusable Features for Non-English Speakers
- Frequent Regression Bugs Post-Release

Choose a theme that:

- Crosses multiple functions or domains
- Has reappeared in more than one milestone
- Reflects both technical and human elements
- Has ambiguous ownership or unclear resolution paths

Write a short paragraph summarizing:

- The risk
- Where it originated (Milestone 1–4)
- Why it is worth deeper diagnosis
- What breakdown or failure it represents

Step 2: Build the Cause Tracer Diagram

Use the Fishbone/Ishikawa structure to visually organize potential root causes under thematic branches. Use at least four of the following cause categories:

- People (e.g., skill gaps, unspoken norms, conflict avoidance)
- Process (e.g., poor documentation, unclear handoffs, role confusion)
- Technology (e.g., unstable APIs, poor test coverage, tool incompatibility)
- Environment (e.g., startup pressure, limited feedback time, funding stress)

- Measurement (e.g., no alert tracking, poor data interpretation, misaligned KPIs)
- Policy (e.g., HIPAA ambiguity, unclear regulatory boundaries)

For each branch, list at least two specific contributing factors. Push past the obvious.

Instead of “bad design,” ask:

- Why was it bad?
- Who designed it under what assumptions?
- What deadline or decision forced shortcuts?

This is a **team learning artifact**, not a blame diagram.

Step 3: Apply the 5 Whys Technique to a Single Symptom

Choose one concrete risk symptom from your theme—e.g., “Clinicians ignore trend alerts”—and apply the 5 Whys method to trace its logic downward.

Ask “Why did this happen?”

Then for each answer, ask “Why?” again, five levels deep.

Example:

1. Why did clinicians ignore trend alerts?
→ Because the alerts were too frequent.
2. Why were they too frequent?
→ Because thresholds were tuned for real-time data, not trend intervals.
3. Why were thresholds not differentiated?
→ Because the alert engine only had one configuration for both.
4. Why did the alert engine lack flexibility?
→ Because early technical decisions hardcoded alert logic to save time.
5. Why did that decision get made?
→ Because sprint velocity was prioritized over configurability due to funding pressure.

This method helps surface:

- Structural design decisions
- Time/budget tradeoffs
- Communication breakdowns
- Cultural or leadership blind spots

Record this 5 Whys sequence as part of your deliverable.

Step 4: Synthesize Findings into a Root Cause Summary

Write a narrative that explains:

- What your visual and narrative tools revealed
- Which root causes were most influential
- Whether root causes are:
 - Structural (design/architecture)
 - Behavioral (team habits or misalignments)
 - Temporal (made sense earlier, no longer valid)
 - Cultural (unspoken rules or tensions)
- What would need to change to prevent recurrence

- What risks remain even if a root cause is addressed

Use this summary to help leadership understand:

- Why symptoms persist
- What cannot be solved through surface fixes
- Where investments in process, training, or re-architecture are warranted

Your Deliverable

Part 1: Cause Tracer Diagram

Includes:

- Title of risk theme diagnosed
- At least four cause branches
- At least two specific contributors per branch
- Clear, legible labeling
- Cross-functional factors where applicable

Format: Table or diagram, typed or drawn clearly.

Part 2: 5 Whys Sequence

- One real symptom traced five levels deep
- Responses listed in narrative or bullet format
- Logical coherence between each level
- Clear articulation of the final root cause

Part 3: Root Cause Summary (1–2 pages)

- Theme overview and selection rationale
- Key contributors surfaced
- Types of root causes identified
- Recommendation summary (what should change, what must be re-examined)
- Optional: insights on trust, fear, or decision patterns

Toolkits and Learning Resources

- [Root Cause Analysis Overview \(Appendix\)](#)
- [Sample Cause Tracer Diagram Template](#)
- [5 Whys Example Walkthrough](#)
- [Milestone 4 Preventive Control \(to cross-reference known gaps\)](#)
- [Stakeholder Interview Prompts \(if gathering quotes or context\)](#)

Critical Reflection

Write 200–300 words on:

- What changed when you stopped at the symptom and asked “Why?”
- Which causes were hardest to name or prove—and why?
- How might internal culture contribute to repeated risk symptoms?
- What’s the difference between accountability and blame in root cause work?
- What are the risks of skipping this kind of diagnosis in a fast-paced project?

Quality Control Review

- Clear problem or risk theme defined
- Fishbone-style cause diagram created with specificity
- 5 Whys sequence completed with logical depth
- Summary includes explanation and insight—not just description
- Reflection addresses team dynamics and system design
- File is formatted for reuse in Milestone 6 or 7
- All components clearly labeled and submitted together

Final Wrap-Up and Submission

Submit your full diagnosis bundle via your assigned LMS portal, team folder, or instructor pathway. You will reuse this root cause work in:

- Milestone 6 (Strategic Framing with SWOT/TOWS)
- Milestone 8 (Stakeholder Integration Plan)
- Milestone 11 (Contingency Planning)

This milestone teaches you how to go beyond the obvious—and help others see what needs to change.

3.5: Milestone 7 – Designing Responses- Business Model Canvas (Part I)

Stakeholder Risk Mapping: Framing Risks from the Patient Perspective

Tool Applied: Strategy Map Using Business Model Canvas (Patient-Facing View)

Final Output: Stakeholder-Centered Risk Strategy Map + Companion Brief

Scenario Briefing

MEMO

To: SMDC Embedded Risk Team

From: Kira L. Joshi, COO, SMDC

Date: Week 8 – Stakeholder Alignment Sprint

Subject: Request for Risk Analysis Through the Patient Experience Lens

Team,

So far, we've viewed our risk landscape primarily from an internal and product execution lens. That's been essential—but incomplete.

We now need to step fully into the patient's shoes. As you know, SMDC's dashboard isn't just a software tool—it's a daily decision partner for people living with Type 1 and Type 2 diabetes. They interact with it multiple times a day. They rely on it to interpret device data, flag warnings, and offer behavioral insight. And they often do so under conditions of fatigue, stress, and competing priorities.

We've heard early signals from our pilot testers and advisors:

- "The alerts make me feel scolded."
- "I don't always know what the numbers mean."
- "It doesn't speak to what my life actually looks like."
- "I'm afraid I'll make a mistake."

Your tasks to reframe our risk model around **patient-centered thinking**. Use the **Business Model Canvas (BMC)** adapted for healthcare to map out how patients experience our product—and where risks emerge across that experience.

We are not looking for usability feedback alone. We are asking you to:

- Identify **risk exposure** from the patient's perspective
- Spot where trust might erode
- Anticipate fear, shame, or cognitive overload
- Reveal how seemingly small design choices may create harm or disengagement

The resulting strategy map will feed our equity and trust-building efforts in the next product sprint.

Make it sharp. Make it human. Make it real.

Kira

Action Strategy

Purpose of This Milestone

In this milestone, you will practice stakeholder-centered risk modeling using a modified version of the **Business Model Canvas** (BMC). You'll focus entirely on the **patient perspective**—not the internal team, not the regulators, not even the clinicians.

You will:

- Deconstruct how a patient engages with SMDC's dashboard
- Identify risks across key dimensions of their lived experience
- Document how features, language, expectations, and environments create or reduce risk
- Offer insights into how the product may unintentionally exclude, confuse, or fail patients
- This is not a marketing exercise. It is a tool for surfacing misalignment between design and experience—and giving voice to a high-stakes user group that often goes unheard in startup product cycles.

Step-by-Step Guide

Step 1: Review SMDC's Intended Patient Experience

Start by reviewing:

- SMDC MVP goals
- Any user personas previously developed
- The "Managing Diabetes in a Data-Driven World" article
- Feedback from Milestone 3, especially if patient voices were simulated

Build a mental model of a day in the life of a patient interacting with the SMDC platform. Consider:

- When and how often they check their dashboard
- What they're hoping to see
- What data inputs they've already provided
- What state of mind they're in (tired, busy, confused, nervous)
- What decisions the dashboard is helping—or failing—to support

Use this narrative to ground your strategy map.

Step 2: Create a Patient-Facing Business Model Canvas

Adapt the BMC to reflect the experience of patients using SMDC. For each section below, define what it means from a patient lens and then identify at least one potential **risk** associated with it:

1. **Customer Segments** – What types of patients are using the dashboard (e.g., T1D vs. T2D, newly diagnosed vs. experienced, English-speaking vs. not)?
 - Risk: Key population groups not supported due to language or design decisions
2. **Value Proposition** – What is SMDC offering patients? Clarity? Alerts? Behavior change? Peace of mind?
 - Risk: Promise of insight undermined by confusing or irrelevant data displays
3. **Channels** – How does the dashboard reach patients (web, mobile, SMS, API integrations)?
 - Risk: Platform or device limitations cause certain populations to be excluded
4. **Customer Relationships** – How do patients feel about SMDC? Are we authoritative? Supportive? Patronizing?
 - Risk: Patients disengage due to perceived judgment or tone mismatch
5. **Revenue Streams** – Who is paying? Do patients know? Is their data being monetized?
 - Risk: Distrust emerges if data use is unclear or consent is assumed
6. **Key Activities** – What must the patient do to benefit? Log meals? Adjust insulin? Respond to alerts?
 - Risk: Excessive input burden creates fatigue or dropout
7. **Key Resources** – What tools or supports do patients need to succeed (education, caregivers, digital literacy)?

- Risk: Tool assumes access or literacy that not all patients have
- 8. **Key Partners** – Are patients connected to clinicians or educators via the platform?
 - Risk: Breakdown in partner integration causes message conflicts or double work
- 9. **Cost Structure** – What emotional or time costs do patients pay? What sacrifices are they making to use the tool?
 - Risk: Costs outweigh perceived value, especially for patients with multiple chronic conditions

Record risks directly in each BMC section. Aim for at least 10 patient-facing risk observations total.

Step 3: Identify 3–4 High-Impact Patient Risk Themes

Review the full canvas and group individual risks into 3–4 themes. Themes might include:

- Digital Overwhelm
- Shame and Emotional Withdrawal
- Access and Inclusion Gaps
- Unclear Language or Visuals
- Misaligned Clinical Recommendations

For each theme, write:

- A short name
- 2–3 risk examples from the BMC
- A 2–4 sentence narrative explaining the experience behind the theme

These become your talking points for the next round of sprint planning or UX review.

Your Deliverable

Part 1: Patient-Facing Business Model Canvas

Include all nine sections completed from a patient perspective
Each section must list:

- Patient behaviors or needs
- Associated risks (at least one per section, ideally more)

Format: Table, grid, or simple narrative with clearly labeled sections

Part 2: Patient Risk Themes Summary

- Name 3–4 themes based on BMC findings
- Include 2–3 supporting risks per theme
- Explain each theme's relevance and potential impact
- Tone: Empathetic, strategic, and user-centered

Optional: Connect to quotes, pilot feedback, or observed reactions (if available)

Toolkits and Learning Resources

- [Business Model Canvas Template \(Patient-Facing Version\)](#)
- [Sample Patient Personas](#)
- [“Managing Diabetes” Article](#)
- [Equity-Based Risk Reflection Prompts](#)
- [Previous Risk Themes from Milestone 3](#)

Critical Reflection

Respond to the following in 200–300 words:

- What surprised you when looking at SMDC through the patient's eyes?
- Which section of the BMC revealed the most risk—and why?
- What assumptions did you or your team challenge during this exercise?
- How should patient-centered risk be weighed in design versus clinical or technical constraints?
- What conversations should this canvas provoke with the broader team?

Quality Control Review

All nine sections of the BMC completed with risk examples
3–4 patient risk themes named, grouped, and explained
Patient perspective clearly drives all content
Reflection shows empathy and analytical depth
Submission labeled for reuse in Milestone 8 and 11

Final Wrap-Up and Submission

Upload your BMC, themes summary, and reflection according to course instructions. This milestone sets the stage for Milestone 8, where you will compare and synthesize multiple stakeholder perspectives to uncover points of tension, convergence, and co-risk.

You are now doing what many teams never do: naming risk from the ground up—from the people most affected by it.

3.6: Milestone 8 – Cross-Segment Risk Integration- Business Model Canvas (Part II)

Multi-Stakeholder Risk Synthesis: Integrating Patient, Clinical, and Engineering Perspectives

Tool Applied: Stakeholder Risk Convergence Map

Final Output: Multi-Stakeholder Risk Map with Conflict Zones, Shared Themes, and Action Brief

Scenario Briefing

MEMO

To: SMDC Risk Integration Unit

From: Kira L. Joshi, Chief Operating Officer, SMDC

Date: Week 9 – Cross-Functional Integration Sprint

Subject: Request for Consolidated Risk Map Across Patient, Clinical, and Engineering Perspectives

Team,

We're approaching the final stretch before our pilot build is locked. Before that happens, I need a consolidated picture of how **different stakeholder groups** experience and understand our current risks.

Our patients want clarity and trust.

Our clinicians want confidence and context.

Our engineers want structure and predictability.

They're not wrong—but they're not aligned.

In past sprints, I've seen the following disconnects:

- Patients saying, "The dashboard makes me feel judged," while clinicians say, "These are necessary warnings."
- Engineers optimizing alert logic while clinical staff ask for more nuance and override flexibility.
- Product emphasizing speed and data layers, while patients request simplicity and fewer decisions.

We need your help to map where these perspectives:

- **Overlap** and amplify risk
- **Contradict** and create friction
- **Ignore** each other and create blind zones

This is a synthesis exercise. Take the patient lens you built in Milestone 7, add clinical and engineering perspectives from past milestones, and produce a **convergence map**: a clear visual and narrative guide to where our risks live **between people**—not just in technology or process.

We will use this map to:

- Prioritize communication
- Flag coordination failures
- Structure stakeholder working groups in the next phase

Help us reduce complexity by showing where our misunderstandings are fueling risk.

Kira

Action Strategy

Purpose of This Milestone

Risk is not just technical. It is political, perceptual, and organizational. The most damaging risks often appear **between roles**—in mismatched assumptions, vocabulary, expectations, or feedback loops.

This milestone helps you:

- Translate across stakeholder perspectives
- Surface co-risk (shared vulnerabilities)
- Identify conflicting expectations or needs
- Map communication failure as a risk amplifier
- Propose specific cross-functional “bridges” to reduce long-term risk

This is a capstone-style synthesis. It prepares you to think like a facilitator, not just an analyst.

Step-by-Step Guide

Step 1: Define Your Three Primary Stakeholders

For this milestone, focus on three core stakeholder lenses:

1. **Patients** – Represented using the Business Model Canvas analysis from Milestone 7
2. **Clinicians** – Refer to stakeholder feedback from Milestone 3, or develop persona-based input from advisors
3. **Engineers/Developers** – Use insights from previous technical risks, sprint reflections, or stakeholder role simulation

Optionally, add a fourth lens (e.g., UX, Product, Regulator), but only if it enhances—not overwhelms—the analysis.

Step 2: Extract Key Risk Concerns from Each Stakeholder

For each stakeholder, list 4–6 top risk concerns they might raise or emphasize.

Example – Patients:

- Misunderstanding alert language
- Feeling overwhelmed by input prompts
- Fear of judgment based on dashboard scoring
- Uncertainty about data ownership

Example – Clinicians:

- Receiving excessive or irrelevant alerts
- Legal liability if trends are missed
- Lack of time to review shared data
- Dashboard undermining clinician-patient authority

Example – Engineers:

- Inconsistent data feeds from device APIs
- Conflicting requirements from product and clinical teams
- Lack of clear acceptance criteria
- Rework due to changing regulatory assumptions

Include risks that are both interpersonal (e.g., tone or workflow) and structural (e.g., data dependencies, logic conflicts).

Step 3: Construct a Stakeholder Risk Convergence Map

Create a grid or table comparing stakeholder risk views:

- Place one stakeholder per column
- Place shared themes in rows
- For each row, note how each group views that issue and whether:
 - They agree
 - They contradict
 - One group is unaware of or dismisses the issue

Label each row with one of the following categories:

- **Co-Risk** – All three groups share the concern
- **Conflict Zone** – Perspectives clash or oppose
- **Blind Spot** – One group is unaware of a risk seen by others
- **False Alignment** – Groups seem to agree but interpret the issue differently

Populate at least 6–8 rows.

Step 4: Write a Stakeholder Integration Brief

Using the convergence map, write a 1–2 page narrative addressing:

- What risks are **shared** across groups and thus high-priority
- Where misalignment is creating **confusion, friction, or delay**
- Where communication is **missing or insufficient**
- How different value systems are shaping risk perceptions
- What opportunities exist to reduce risk through dialogue, not redesign

Use respectful, neutral language. Highlight solutions like:

- Shared design reviews
- User story rewrites
- Joint validation rounds
- Bridging roles (e.g., clinician-in-residence working with engineering)

Your Deliverable

Part 1: Stakeholder Risk Convergence Map

A grid or table showing:

- Stakeholders: Patients, Clinicians, Engineers
- 6–8 shared or conflicting risk issues
- Interpretation of each issue by stakeholder
- Risk classification (Co-Risk, Conflict Zone, Blind Spot, False Alignment)

Format: Text table, spreadsheet, or structured narrative table

Part 2: Stakeholder Integration Brief

1–2 page memo including:

- Summary of where risks align or clash
- 2–3 recommendations for bridging roles or cross-group sessions

- Notes on value misalignment (e.g., safety vs. usability vs. velocity)
- Reflection on why shared language and cross-role empathy are central to risk control

Tone: Analytical, empathic, forward-looking

Toolkits and Learning Resources

- [Sample Stakeholder Personas \(Appendix\)](#)
- [Stakeholder Comparison Template](#)
- [Milestone 3–7 Risk Themes](#)
- [Patient BMC \(Milestone 7\)](#)
- [Interview Prompts or Quote Bank \(if available\)](#)
- [Co-Risk and Misalignment Coding Guide](#)

Critical Reflection

Respond to the following in 200–300 words:

- What surprised you about how different groups define or prioritize risk?
- Where did you see unspoken assumptions causing blind spots?
- What risks can only be resolved through better conversation—not better code?
- How does this exercise change your idea of what a “risk manager” really does?
- What tradeoffs did you confront in trying to synthesize multiple truths?

Quality Control Review

- Three stakeholder groups included
- 6–8 shared/conflicting risk areas documented
- Each risk labeled with alignment category
- Integration brief is thoughtful, solution-oriented, and reflective
- Deliverables formatted for use in Milestone 9 (Cost-Based Risk Control)
- Reflection reveals stakeholder empathy and synthesis capacity

Final Wrap-Up and Submission

Submit your map, brief, and reflection per course instructions. This milestone bridges directly into Milestone 9, where you will apply cost analysis and selection logic to decide which risks and controls are worth pursuing—and how to manage tradeoffs.

You are now practicing full-spectrum risk thinking: not just analysis or design, but **integration across roles, values, and realities**.

3.7: Milestone 9 – Prioritizing Risk Controls- Risk Program Areas

Cost-Based Risk Prioritization: Selecting the Most Effective Controls

Tool Applied: Control Effort–Impact Evaluation and Cost Prioritization Framework

Final Output: Prioritized Risk Control Selection Matrix + Control Justification Memo

Scenario Briefing

MEMO

To: SMDC Risk Decision Support Unit

From: Kira L. Joshi, Chief Operating Officer, SMDC

Date: Week 10 – Pilot Investment Decision Point

Subject: Request for Cost-Based Prioritization of Risk Controls

Team,

We are entering the investment decision phase for our SMDC dashboard pilot. While your recent risk diagnostics and stakeholder synthesis work have been invaluable, we now face a difficult reality: **we cannot implement every control we’ve designed.**

Our budget for the next quarter is fixed. Development time is capped. Clinical input is in short supply. Every control we implement has a cost—either in money, people, or time. What we need from you now is **a rigorously justified, resource-aware control selection plan.**

Specifically, I’m asking for a matrix that compares:

- Each of our top risk control options
- The relative effort or cost to implement
- The expected impact if implemented
- Any indirect tradeoffs or dependencies

I want your professional recommendation: **Which five controls should we prioritize**, and why?

This will directly inform what moves into the pilot release and what must be deferred. Make your case with clarity, logic, and empathy for our constraints.

You are not just shaping safety—you are guiding strategy.

Kira

Action Strategy

Purpose of This Milestone

This milestone trains you to think like a resource-bound project leader. You will:

- Translate qualitative control plans into comparative cost-impact logic
- Evaluate which controls are truly “worth it” at this phase
- Use effort-impact mapping to argue for the right combination of feasibility and effect
- Demonstrate that risk planning is a series of **strategic tradeoffs—not an all-you-can-eat buffet**

Step-by-Step Guide

Step 1: Gather Your Pool of Control Options

Start by reviewing your Milestone 4 Preventive Control Checklists. Combine these with additional control ideas surfaced during:

- Milestone 5 (Root Cause Analysis)
- Milestone 6 (TOWS Strategy Pivots)
- Milestone 8 (Stakeholder Convergence Planning)

From these sources, create a **long list** of 10–12 viable controls that:

- Address high-priority risks
- Are structurally or behaviorally implementable
- Are clear enough to evaluate

Controls may include:

- Alert customization configuration
- API fallback syncing
- Glossary or visual tooltip features
- Consent refresh workflow
- Shared patient-clinician summary view

Step 2: Evaluate Effort (Cost) and Impact for Each Control

Create a matrix or spreadsheet. For each control, assign:

1. **Effort Score** (1–5)
 - 1 = Very low effort or cost
 - 5 = Requires new team, vendor contract, or multi-sprint change
2. **Impact Score** (1–5)
 - 1 = Minimal influence on risk outcome
 - 5 = Prevents or reduces a major risk identified in past milestones
3. **Dependencies**
 - List any people, approvals, or integrations needed
4. **Tradeoffs**
 - What might get delayed or sacrificed by implementing this control?
5. **Benefit Notes**
 - Short rationale on what risk is addressed and why it matters

Step 3: Plot and Select Priority Controls

Using the scores:

- Identify controls that are **high-impact and low-effort**
- Flag **high-impact but high-effort** controls for future escalation
- Eliminate **low-impact, high-effort** controls from immediate planning
- Watch for **dependency clusters** that affect sequencing

Select your **top five controls** based on:

- Total risk reduction
- Strategic feasibility
- Readiness for pilot inclusion
- Cross-functional value

Label these clearly as “Selected” and note why they made the cut.

Step 4: Write a Control Prioritization Memo

Create a 1–2 page memo addressed to the COO explaining:

- What five controls you recommend
- The risk(s) each addresses
- The rationale for their selection (effort, impact, urgency)
- What tradeoffs were considered
- Which controls you recommend deferring—and why

This memo will be used to support sprint planning and resource allocation meetings.

Your Deliverable

Part 1: Control Selection Matrix

Table or spreadsheet including:

- At least 10 control options
- Effort and Impact scores
- Dependencies and tradeoffs
- Selection status (Selected/Deferred/Discarded)
- Notes on benefit and rationale

Part 2: Control Prioritization Memo

1–2 page professional brief including:

- Top 5 recommended controls
- Reasoning for each
- Total risk areas covered
- Risks or delays avoided through this prioritization
- Notes on what controls must wait and the risks of delay

Toolkits and Learning Resources

- [Control Effort–Impact Mapping Guide \(Appendix\)](#)
- [Sample Control Matrix Template](#)
- [Budget and Time Constraints Sheet \(Simulated\)](#)
- [Milestones 4–8 Risk and Control Work](#)
- [Control Benefit–Burden Tradeoff Guide](#)

Critical Reflection

Answer in 200–300 words:

- Which control was hardest to deprioritize—and why?
- What made a “low-effort” control more powerful than expected?
- How do emotion, politics, or stakeholder pressure influence prioritization?
- What risks are introduced by saying “no” to good ideas for now?
- What would you want a future team to know about the decisions made here?

Quality Control Review

- 10 or more control options evaluated
- Effort and Impact scores included and explained
- Five controls selected with logic
- Tradeoffs, dependencies, and assumptions documented
- Memo includes professional justification and future notes
- Reflection addresses discomfort and insight
- Files prepared for integration into pilot risk tracking (Milestone 11)

Final Wrap-Up and Submission

Submit your matrix, memo, and reflection per course instructions. This milestone becomes part of your pilot phase documentation—and feeds directly into:

- Milestone 10 (Decision Tree Modeling)
- Milestone 11 (Contingency Planning)
- Final Portfolio

This is the moment where your risk judgment becomes strategy. You are making the hard calls—the ones that determine whether safety, trust, and feasibility coexist.

3.8: Milestone 10 – Decision Analysis for Control Selection

Decision Modeling: Structuring Risk Tradeoffs Through Tree Analysis

Tool Applied: Decision Tree Analysis

Final Output: Modeled Decision Tree + Mitigation Path Summary Memo

Scenario Briefing

MEMO

To: SMDC Risk Strategy & Decision Support Team

From: Kira L. Joshi, Chief Operating Officer, SMDC

Date: Week 11 – Risk Tradeoff Analysis Sprint

Subject: Request for Modeled Decision Tree to Support Control Investment Planning

Team,

As we finalize the risk control plan for the pilot release, we need to look carefully at one of our **toughest risk decisions**—a situation where the tradeoffs between cost, risk, and speed are real and nontrivial.

We have one control option that is highly effective in theory but expensive or complex to implement. We also have alternative actions that might be “good enough”—or could introduce new risks if misunderstood.

I need a **structured decision model** to evaluate these options using risk-informed thinking.

Use a decision tree format to map:

- The key decision point
- The available options
- The risks or consequences for each path
- Any known probabilities or assumptions
- Where controls might reduce or shift risk
- Where follow-up decisions may be required

You don’t need to find the “right” answer—you need to **make the logic of the decision visible**.

We’ll use your tree to support funding allocation and stakeholder alignment. Focus on realism, transparency, and clarity of consequences.

Kira

Action Strategy

Purpose of This Milestone

This milestone trains you in **risk-based decision modeling** using the decision tree format—a tool for:

- Making high-stakes choices visible
- Comparing alternatives across risk and resource dimensions
- Identifying “cascading consequences”
- Supporting collaborative and stakeholder-transparent thinking

In this exercise, you will:

- Select one major control or risk intervention to model
- Identify competing or alternate strategies
- Map out potential outcomes and consequences
- Assign impact or cost values if known
- Summarize findings for team-based planning

This is your first introduction to **quantified uncertainty framing**.

Step-by-Step Guide

Step 1: Select a High-Stakes Decision Scenario

Choose one risk scenario where:

- Two or more response strategies are being considered
- Tradeoffs between cost, quality, speed, or equity are real
- Stakeholders may be divided on what to do
- You've explored this theme in a previous milestone

Examples:

- Alert Overload: Reduce alert frequency (but risk missing true positives) vs. redesign alert language (costly and late)
- API Sync Failures: Build internal redundancy (expensive) vs. wait for vendor fix (low effort but high dependency)
- Data Consent Confusion: Add education module (delays launch) vs. leave consent language unchanged (risk of breach or mistrust)

Clearly label your decision scenario and options.

Step 2: Define the Tree Structure

In a decision tree:

- The **root** is your decision point
- The **branches** are your response options
- The **nodes** are outcomes (success/failure or multiple outcomes)
- Optional: assign **probabilities or impact scores** to each outcome

Use structured branching like this:

1. Decision: Improve Alert System
 - Option A: Redesign language + targeting
 - Outcome 1: Alert clarity improves (80%)
 - Outcome 2: Delayed launch (20%)
 - Option B: Reduce frequency only
 - Outcome 1: Alert volume drops, safety risk increases (50%)
 - Outcome 2: No feedback change, clinician trust declines (50%)

Add cost, impact, or likelihood values as known or estimated.

Step 3: Annotate Key Factors

For each branch or outcome:

- Label dependencies (e.g., external vendor support)
- Flag secondary risks (e.g., reputational harm, legal exposure)
- Mark potential decision loops or follow-up actions (e.g., "Revisit in sprint 2 if no adoption")

- Note equity implications (e.g., “Option A benefits English speakers more”)

Use these annotations to guide your summary memo.

Step 4: Choose Your Decision Recommendation (Optional)

Based on your tree and values:

- Recommend one path, if justified
- OR describe the tradeoffs clearly and neutrally
- OR recommend conditional decision points (e.g., “If usage feedback remains below threshold, escalate to redesign”)

The goal is not to win—it’s to **equip the team to choose consciously**.

Your Deliverable

Part 1: Decision Tree Diagram

- Title and decision scenario stated
- At least two main options (branches)
- At least two outcomes per branch
- Probabilities, impact, or cost labeled if possible
- Dependencies and secondary risks noted
- Final recommendation or “decision path logic” clearly framed

Part 2: Mitigation Path Summary Memo

1–2 page professional memo addressing:

- The decision being modeled
- The control or risk being addressed
- Options and consequences
- Values or assumptions behind the model
- Suggested recommendation or decision path
- Notes on what success or failure would look like

Toolkits and Learning Resources

- [Decision Tree Modeling Template](#)
- [Sample Trees from Health and Tech Projects](#)
- [Milestone 9 Control Matrix](#)
- [Risk-to-Impact Estimation Guide](#)

Critical Reflection

Write 200–300 words addressing:

- What assumptions were hardest to model—and why?
- How did mapping the consequences visually shift your understanding?
- What did you learn about downstream risks or “unspoken costs”?
- What makes decision-making under risk difficult for teams?
- How might this method improve alignment or trust?

Quality Control Review

- One decision scenario selected and labeled
- At least two response paths modeled
- Each path includes multiple outcomes
- Risks, impacts, or dependencies annotated
- Memo is complete, concise, and logically structured
- Reflection includes modeling insight and ethical depth
- Submission is ready for reuse in Milestone 11 or final integration

Final Wrap-Up and Submission

Submit your decision tree, summary memo, and reflection per instructions. This milestone prepares you for Milestone 11, where you'll address **what happens when risks emerge anyway**—through contingency planning and escalation design.

You are now structuring the hard decisions—and making risk manageable, even when outcomes are uncertain.

3.9: Milestone 11 – Developing and Updating Risk Responses

Contingency Planning: Preparing Responses for Risk Activation

Tool Applied: Contingency Playbook with Escalation Protocols

Final Output: Risk Response Plan + Escalation Map

Scenario Briefing

MEMO

To: SMDC Risk Operations Planning Team

From: Kira L. Joshi, Chief Operating Officer, SMDC

Date: Week 12 – Final Pre-Pilot Planning

Subject: Request for Contingency Plans for Active Risk Scenarios

Team,

We are now in the final stages of preparing for our pilot. While we've done excellent work defining risks, selecting controls, and modeling tradeoffs, we must now accept a simple reality: **some risks will still occur.**

Despite our best plans, we will:

- Miss things
- Get feedback we didn't expect
- Experience vendor hiccups
- See user behaviors we didn't model
- Encounter clinical or legal gray zones

I need a clear, structured **contingency plan** for three to five likely risk events. These are events that would:

- Disrupt trust
- Impact safety or usability
- Derail timelines
- Require cross-functional response

Your job is to build a simple but actionable playbook. For each risk:

- Define the activation trigger (What makes this real?)
- Specify the immediate response (What do we do right now?)
- List responsible parties (Who leads and supports?)
- Provide a recovery plan (How do we resolve, learn, and communicate?)
- Include an escalation threshold (When does this go above team level?)

This is not a hypothetical exercise. Treat it like it will be used by the on-call team next week.

If we do this well, our team will feel prepared—not panicked.

Let's finish strong.

Kira

Action Strategy

Purpose of This Milestone

Contingency planning helps teams transition from **risk awareness to risk agility**. It ensures that when risks activate, the team responds:

- Calmly
- Clearly
- Consistently
- Accountably

This milestone teaches you to:

- Identify realistic, impactful risk scenarios
- Translate “what could go wrong” into “what we will do”
- Design cross-role response protocols
- Define escalation boundaries
- Practice structuring uncertainty without panic

You will create a **Contingency Playbook** and an **Escalation Map** that become operational tools for project teams.

Step-by-Step Guide

Step 1: Select 3–5 Contingency Scenarios

Review your prior milestones and select 3–5 high-likelihood or high-impact risks that:

- Remain partially uncontrolled
- Have already surfaced in pilot feedback or testing
- Could threaten patient trust, safety, or schedule stability
- Require multi-role coordination to address

Examples:

- Consent language causes user drop-off
- Alert fires at incorrect thresholds, confusing clinicians
- Data fails to sync for a specific device type
- A feature violates HIPAA unintentionally
- Clinician or patient feedback exposes a serious usability issue

For each risk, write a short scenario summary.

Step 2: Build the Contingency Playbook

For each selected scenario, define:

1. **Trigger Condition**
 - What event or signal activates this contingency?
 - How will we know this risk is occurring?
2. **Immediate Response**
 - What action must be taken within 1–24 hours?
 - What do we pause, notify, roll back, or adjust?
3. **Roles and Responsibilities**
 - Who owns this response?
 - What cross-functional support is needed?

4. **Communication Plan**

- Who must be informed (internal and external)?
- What should be communicated (transparency vs. liability)?

5. **Recovery Path**

- How do we stabilize and resume?
- What learning or process updates follow?

6. **Escalation Threshold**

- At what point does this issue move to senior leadership, legal, or regulatory teams?

Repeat this structure for each scenario. Keep instructions specific, brief, and realistic.

Step 3: Create an Escalation Map

Visualize or narrate a tiered escalation system. For example:

- **Tier 1** – Local issue, resolved by sprint team (e.g., data bug fix)
- **Tier 2** – Cross-functional risk, requires COO or clinical escalation (e.g., repeated alert misfires)
- **Tier 3** – Legal or reputational risk, triggers board review or external counsel (e.g., suspected HIPAA breach)

Label:

- Types of issues in each tier
- Who is responsible for triage and handoff
- Timeline or urgency expectations

This helps prevent overreaction or delay.

Your Deliverable

Part 1: Contingency Playbook

Includes:

- 3–5 well-defined risk scenarios
- Each with 6 response elements: trigger, immediate action, roles, communication, recovery, escalation
- Clearly labeled and formatted for team use

Format: Playbook-style table or bullet list per risk

Part 2: Escalation Map

Narrative or table format showing:

- Risk types and severity levels
- Escalation tiers (1–3 or more)
- Decision owners and boundaries
- Sample issue types per tier

Optional: Include time-to-response or notification chain

Toolkits and Learning Resources

- [Contingency Planning Template](#)
- [Milestone 2 and 4 Risk Scenarios](#)
- [Decision Tree Output \(Milestone 10\)](#)
- [SMDC Stakeholder Directory \(simulated\)](#)

- [Sample HIPAA Incident Response Guide \(if provided\)](#)

Critical Reflection

Answer in 200–300 words:

- Which scenario was hardest to prepare for—and why?
- What kinds of responses felt most urgent but least clear?
- How does contingency planning reduce panic and build team confidence?
- What emotional or ethical tensions arise in risk communication?
- How would you teach this mindset to a new team?

Quality Control Review

- 3–5 realistic risk scenarios selected
- Each includes clear response components
- Escalation logic is present and actionable
- Memo and reflection demonstrate maturity in risk framing
- Submission formatted for use in pilot team prep
- Ready to inform final milestone and course synthesis

Final Wrap-Up and Submission

Submit your contingency playbook, escalation map, and reflection according to course guidelines. This milestone will be included in your final risk portfolio—and may be used in mock handoffs, role plays, or leadership simulation during your capstone.

You are now not just naming risk—you are **leading under pressure**.

3.10: Milestone 12 – Using Statistics to Understand and Mitigate Risk

Final Risk Portfolio and Reflection: Synthesizing What You’ve Built, Learned, and Led

Tool Applied: Portfolio Assembly and Reflective Synthesis

Final Output: Structured Risk Portfolio + Personal Leadership Reflection

Scenario Briefing

MEMO

To: All CIS 95C Practicum Participants

From: Kira L. Joshi, Chief Operating Officer, SMDC

Date: Week 13 – Final Week of Risk Engagement

Subject: Completion and Submission of SMDC Risk Portfolio

Team,

Over the past twelve weeks, you’ve worked through a comprehensive risk simulation—one that reflects the real complexity of building a high-stakes product inside a mission-driven startup.

You’ve:

- Created visibility through risk structures
- Prioritized, diagnosed, and modeled consequences
- Designed controls, framed strategy, and mapped stakeholder tensions
- Delivered decisions under constraint
- And built contingency plans for real-world chaos

Now, it’s time to **consolidate what you’ve built** and reflect on what you’ve learned—not just about projects, but about leadership, systems thinking, and clarity under pressure.

Please assemble your **Final Risk Portfolio**, which includes revised, cleaned-up versions of each milestone, and a personal **Leadership Reflection** capturing what you now understand about risk—not as a checklist, but as a mindset.

You are now more than a student. You’ve stepped into the voice and role of a risk leader. This milestone is your moment to demonstrate that.

Let’s finish with clarity, honesty, and pride.

Kira

Action Strategy

Purpose of This Milestone

The final milestone serves two purposes:

1. **Portfolio Assembly** – Compile your best work from Milestones 1–11 into a cohesive, professional portfolio that showcases your risk leadership journey.
2. **Reflective Synthesis** – Articulate what you learned across this process—including how your thinking has changed, what

challenged you, and how you now approach complexity, communication, and responsibility.

This is not busywork. This is a signal to future employers, teams, and your future self: **I've done the work. I can name risk. I can manage it. I can lead through it.**

Step-by-Step Guide

Step 1: Assemble Your Final Portfolio

Create a folder or digital binder (PDF, Google Drive, Canvas, etc.) that includes the following:

1. **Milestone Title Page for Each Section**
 - Include the milestone number, title, and a one-paragraph summary of what it covered and what your key takeaway was.
2. **Cleaned Versions of All Deliverables**
 - Milestone 1: Risk Breakdown Structure
 - Milestone 2: Risk Impact Matrix and Themes
 - Milestone 3: Stakeholder Consensus Map and Risk Themes
 - Milestone 4: Preventive Control Checklist
 - Milestone 5: Root Cause Analysis
 - Milestone 6: Strategic TOWS Framing
 - Milestone 7: Patient Risk Canvas
 - Milestone 8: Stakeholder Convergence Map
 - Milestone 9: Cost-Based Control Prioritization
 - Milestone 10: Decision Tree Model
 - Milestone 11: Contingency Playbook

Each should be labeled clearly, professionally formatted, and corrected or improved based on feedback.

3. **Optional Portfolio Enhancements**
 - Risk Summary Index Table
 - Glossary of Key Terms (created by you)
 - Stakeholder Empathy Notes or Quote Highlights
 - Reflection highlights across milestones

Step 2: Write Your Leadership Reflection Essay

Write a 2–3 page narrative (500–750 words) reflecting on your personal journey through this practicum. Suggested prompts:

- What was your mindset at the beginning of this course—and what has changed?
- Which milestone challenged you the most, and how did you grow from it?
- How do you now define “risk” beyond technical or financial terms?
- What does leadership look like during uncertainty or failure?
- How do you balance visibility with humility, control with care?
- What would you do differently in a real-world project after completing this course?
- How do you want to show up as a risk leader in your next role, project, or team?

This is your chance to integrate your technical, emotional, and strategic growth into one powerful statement.

Your Deliverable

Part 1: Final Risk Portfolio

- Includes all 11 milestone deliverables
- Each labeled and organized with a title page summary
- Any revisions or improvements made after initial feedback

- Submitted as a single binder, folder, or PDF file as per instructor instruction

Part 2: Leadership Reflection Essay

- 2–3 pages (500–750 words)
- Narrative tone encouraged
- Specific, honest, insightful
- May be shared with instructors, peer reviewers, or included in your capstone

Optional: Include one piece of advice you would give to future students starting this course.

Toolkits and Learning Resources

- [Portfolio Checklist \(Instructor Provided\)](#)
- [Reflection Prompt Sheet](#)
- [Sample Reflection Excerpts \(Optional\)](#)
- [Final Presentation Template \(if presenting live\)](#)
- [Peer Feedback Rubric \(if applicable\)](#)

Final Reflection Questions

You may use these to guide your Leadership Reflection or journal on your own:

- What surprised me most about risk planning?
- What risk habits do I want to keep, challenge, or evolve?
- Where did I lead without being asked to?
- What moment in the course helped me understand systems or people better?
- What does it mean to take responsibility when things go wrong?

Quality Control Review

- All 11 milestone deliverables included and labeled
- All submissions formatted professionally
- Reflection meets length and depth expectations
- Portfolio tells a coherent story of growth
- Reflection demonstrates metacognition, empathy, and critical thinking
- Final product is ready to be shared, reviewed, or archived professionally

Final Wrap-Up and Submission

Submit your full portfolio and Leadership Reflection per final instructions. This completes your CIS 95C practicum and earns you credit for demonstrating risk literacy, design maturity, and leadership potential.

This is more than a grade. This is your record of readiness.

Congratulations on completing the journey.

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3.11: Milestone 1 – Structuring Risk- Risk Breakdown Structure (RBS)

Welcome to Your First Mission

You're stepping into your first real role as a **risk strategist**. And like any good strategist, your job isn't to panic—it's to **see clearly** before the chaos begins.

Your mission? Help SMDC's leadership team build a **Risk Breakdown Structure (RBS)** that exposes the hidden risks, blind spots, and invisible cracks in their plan to build a diabetes dashboard for people whose lives literally depend on it.

Sound intimidating? Good. That means it matters.
But don't worry—we'll walk you through every step.

Scenario Briefing

INTERNAL MEMO

To: Embedded Risk Analyst(s) – Risk Management Team

From: Kira L. Joshi, Chief Operating Officer, SMDC

Date: Week 2 – Initiation and Planning Phase

Subject: Request for Structured Risk Visibility Using Risk Breakdown Structure (RBS)

Team,

We are officially entering the build phase of our SMDC Data Dashboard initiative—a first-generation digital platform designed to support self-managed diabetic care through personalized, integrated data visualization and alerts.

This is a high-stakes project. We are balancing:

- Multi-device data integration
- Real-time clinical relevance
- Regulatory exposure
- And the needs of a highly diverse patient population

Your job is to surface and structure risks using a clear, visual RBS. We need to see:

- Where risk clusters
- What we haven't named yet
- What might hurt us if ignored

Please go deep. Ask the hard questions. Help us prepare, not just react."

Our users are managing diabetes minute to minute. If our dashboard fails, distracts, or delays action, it won't just be a design flaw—it may create clinical risk, erode trust, or deepen health disparities.

As a leadership team, we are asking for your expertise to help us **see the risk landscape clearly and early**.

Please initiate a **Planning Meeting and Analysis** using a **Risk Breakdown Structure (RBS)**. This RBS should visually categorize the major risk domains across our organization, timeline, infrastructure, and stakeholders.

Specifically, identify risks related to:

- Scope clarity and MVP overreach
- Development velocity vs. clinical safety

- Budget fragility and investor pressure
- HIPAA compliance, SaMD thresholds, and FDA signaling
- Stakeholder misalignment across UX, clinical, product, and legal
- Team burnout, blind spots, and cultural carryovers from past projects
- Equity failures—where our product may unintentionally exclude, confuse, or harm vulnerable populations

Your RBS should not be just a diagram. It should be a **decision-support artifact**. We will use it to prioritize early-stage resourcing, shape investor briefings, and guide technical tradeoffs across the next three sprints.

You have full permission to ask hard questions and surface uncomfortable truths.

Help us see what we haven't named yet.

With trust,
Kira

Action Strategy

Purpose of This Milestone

In the world of early-stage startups, most projects fail not because they lacked good ideas—but because **risks were allowed to stay invisible**. Your mission is to deliver a professional-grade **Risk Breakdown Structure** that creates visibility across SMDC's operational ecosystem.

This milestone trains you to think structurally and speak clearly about risk **before** project chaos sets in.

You are not solving risks yet—you are identifying **where** they live, how they cluster, and how to create a shared language to track them.

Step-by-Step Guide

Step 1: Prime Yourself with Context (Read and Annotate)

Review these core readings before starting:

- **Managing Diabetes in a Data-Driven World** – to understand the user's daily reality, endocrinology, and complexity
- **Building SMDC** – to examine startup constraints, regulatory exposure, and cultural dynamics

Create a notes doc or mind map to jot:

- Key failure points
- Behavioral or equity gaps
- Technical or organizational weak spots

Step 2: Review the Planning Inputs

Use the following six inputs as your starting categories:

Key project input areas and guiding questions for identifying potential risks.

Input Area	What to Consider
Scope	What's being built? What features might expand late? What assumptions are unclear?

Input Area	What to Consider
Cost	Where is the budget fragile? Where are resource mismatches likely?
Schedule	What timelines are fixed vs. flexible? What dependencies exist (e.g., APIs, device partners)?
Communication	Where might silos form? What information may not flow?
EEFs	What external rules, pressures, or markets shape our project (e.g., HIPAA, FDA, supply chain, digital equity)?
OPAs	What internal norms, tools, or habits might help—or hurt—our ability to manage risk?

For each category, brainstorm **at least 5–8 specific risks** using post-its, digital whiteboards, or a shared doc.

Encourage boldness:

“What’s the thing we’re pretending won’t happen?”

Step 3: Facilitate a Risk Mapping Workshop (Team or Solo)

If in a team:

- Appoint a **Risk Facilitator**
- Assign categories across teammates
- Use color-coded cards or Miro/Mural boards
- Use phrases like:
 - “Where do we think we’re strongest?”
 - “Where’s the most invisible risk?”
 - “What’s an edge case we’re not ready for?”

If working independently:

- Build a table with six columns and start populating risks
- Use guiding categories like:
 - Regulatory
 - Technical
 - Clinical
 - User Experience
 - Operational
 - Team Health

Use specific risk phrases, e.g.:

- “Clinicians reject dashboard due to cluttered alerts”
- “Bluetooth sync fails on Android 11 devices”
- “Pilot launch delayed due to EHR vendor incompatibility”

Aim for 30–40 raw risks before clustering.

Step 4: Build Your RBS Tree

Now cluster your risks into a **3-Level Risk Breakdown Structure**:

Example of a three-level Risk Breakdown Structure showing how broad risk domains can be organized into subdomains and specific risk examples.

Level	Function	Example
Level 1	Major domain	Clinical
Level 2	Functional subdomain	Clinician Interpretation
Level 3	Risk example	“Alert fatigue causes clinicians to ignore trend notifications”

Use a digital diagramming tool (Slides, Lucidchart, Canva, etc.) or a well-organized table. Choose a clean layout:

- Vertical hierarchy
- Swimlane format by stakeholder
- Color-coded tree by urgency or ownership

Make the RBS a **living structure**, not just a one-time document.

Step 5: Annotate and Strategize

Add optional but powerful annotations:

- Icons for high-risk/high-uncertainty nodes
- Color bands for “patient harm,” “reputational,” or “technical failure” risks
- Arrows for interdependencies (e.g., device failure → data delay → alert mistrust)

Use this version in team discussions or milestone reviews.

Your Deliverable

Part 1: Risk Breakdown Structure Diagram

- Title: RBS – SMDC Risk Mapping – [Your Name/Team]
- Format: Clean visual with 5–7 top categories
- Detail: At least 15–25 specific risk examples
- Language: Clear, precise, no jargon
- Optional: Color codes, icons, arrows for bonus clarity

Tips for Impact:

- If Kira reviewed this, would she find it readable in under 3 minutes?
- If the CEO had to defend this at a board meeting, would it hold up?

Part 2: Framing Narrative (1–2 paragraphs)

Include:

- Where risk was most concentrated
- What surprised you during your mapping
- How this will help the team avoid false confidence or “invisible icebergs”

Toolkits and Templates

- [Mini Guide: Planning Meeting and Analysis](#)
- [Sample RBS from a Healthcare App](#)
- [Editable RBS Template](#)
- [“Managing Diabetes” Article](#)
- [“Building SMDC” Risk Article](#)
- [SMDC MVP Brief Sheet – Constraints and stakeholders](#)

Critical Reflection (Required)

Respond in 150–250 words:

- Where did you feel most uncertain in categorizing risk?
- What’s a “taboo” or overlooked risk that felt hard to say out loud?
- What would you want to tell a future team leader reviewing this RBS?
- What did this teach you about silence, structure, or responsibility?

Quality Control Review

- 5–7 top-level categories labeled
- At least 15–25 specific risks detailed
- Clean structure, legible labels, no duplication
- Title, name(s), and version clearly listed
- Narrative and reflection attached or embedded
- Diagram file saved in accepted format (PDF/Slide/Image)
- Shared folder or LMS upload complete

Final Wrap-Up and Submission

Turn in your final milestone to the LMS, team folder, or instructor collection point. Your instructor may use this for:

- Team feedback
- In-class case discussion
- Risk maturity assessment
- Peer reviews or cross-team critique

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3.12: Milestone 4 – Creating Controls- Checklist Analysis

Designing Preventive Risk Controls: Proactive Structures for Managing Critical Risk Themes

Tool Applied: Preventive Control Checklist

Final Output: Control Strategy Design for One High-Priority Risk Theme

Scenario Briefing

MEMO

To: Risk Design Team

From: Kira L. Joshi, Chief Operating Officer, SMDC

Date: Week 5 – Risk Response Planning Phase

Subject: Request for Preventive Control Framework on High-Priority Risk Theme

Team,

We've now reached the point where risks can't just be monitored—they must be actively addressed. Your Risk Breakdown Structure gave us visibility. Your Impact Matrix gave us focus. Your stakeholder validation effort in Milestone 3 highlighted where alignment is strong and where it's fragile. We now need your leadership on turning that insight into **preventive structure**.

Please choose one of the three to five high-priority risk themes from your validated list and build a formal **Preventive Control Checklist** for that domain. Your work should guide our team in identifying the actions, protocols, or processes needed to **reduce the likelihood and magnitude** of risks associated with that theme.

This is not a reactive mitigation plan. This is proactive control design.

The output will be shared with Engineering, UX, and Operations leads, and may also be adapted into our pilot evaluation framework. We're especially interested in:

Who owns the control

When it happens

What success looks like

What warning signs exist if the control fails

How the control supports our values—especially around safety, trust, and inclusion

Design this framework as if it will be adopted tomorrow. Be specific, pragmatic, and rigorous.

We need clarity before we build anything else.

Kira

Action Strategy

Purpose of This Milestone

This milestone introduces one of the most vital distinctions in project risk management: **preventing risk versus reacting to it**.

Your job here is to select one high-priority risk theme, break it down into specific vulnerabilities, and design a **checklist of preventive controls**—steps that will reduce the chances that these risks materialize during SMDC's MVP delivery.

You will learn how to define:

- What a control is
- Who owns it
- When and how it must be applied
- How it signals failure or success
- How it connects to SMDC's mission and operational constraints

By the end of this milestone, you will have created a shareable control guide that could be implemented by a real project team.

Step-by-Step Guide

Step 1: Select a Risk Theme to Target

Review your Milestone 3 synthesis memo. Choose one of your top 3–5 priority themes. It should be:

- Specific enough to scope in this milestone
- Actionable by the project team in the current MVP cycle
- Supported by stakeholder consensus or urgency

Examples of strong candidate themes include:

- Alert Interpretation Risk (clinicians overwhelmed or confused by system alerts)
- Integration Failure Risk (glucose monitors or EHRs don't sync reliably)
- Privacy and Consent Gaps (patients unsure how their data is being used)
- Accessibility Barriers (low-literacy or non-English speakers cannot use dashboard)
- Siloed Development Risk (cross-functional miscommunication causing defects)

Define the **theme title**, its origin (RBS or stakeholder feedback), and the **consequences if left uncontrolled**.

Step 2: Identify Specific Risk Drivers Within the Theme

Break the theme into 3–5 specific risks. Each should be a standalone concern within the larger pattern.

Example (for “Alert Interpretation Risk”):

1. Clinicians do not receive alerts in preferred format (text/email)
2. Alerts fire too often, causing desensitization
3. Trends are flagged without clinical thresholds
4. Patients are unclear on alert urgency, leading to panic or neglect

This becomes the control target list.

Step 3: Define Control Principles

For each risk, define the **control strategy** using these elements:

1. **Control Name** – a short, precise label (e.g., Alert Channel Configuration Review)
2. **Control Owner** – the role or team responsible for executing the control
3. **Timing** – when and how often the control should occur
4. **Mechanism** – the task, check, or process used to apply the control
5. **Evidence of Completion** – what proves the control was done correctly
6. **Warning Sign (Trigger)** – what signals the control failed or is eroding
7. **Dependencies or Notes** – any tools, people, or processes the control relies on

Repeat this format for each individual risk under your selected theme.

Step 4: Assemble the Preventive Control Checklist

Create a structured checklist that a team could use during sprint planning, launch reviews, or pilot evaluations.

Each checklist item should follow this format:

- Item label
- Control owner
- Instructions (what to do, when, and how)
- Success metric
- Trigger for concern
- Status box (for live tracking or accountability)

Keep language clear, technical enough to be precise, but accessible to all roles.

Step 5: Include a Control Rationale Summary

Write a one-page narrative explaining:

- Why this risk theme was selected
- What failure would look like if left unaddressed
- How your proposed controls reduce probability and/or consequence
- How the controls support SMDC's mission, values, and equity commitments
- Any known limitations (e.g., if certain controls depend on vendor support or future budget)

Your Deliverable

Part 1: Preventive Control Checklist

Includes:

- 1 selected risk theme
- 3–5 specific risks
- 1 preventive control per risk
- Control attributes as defined above
- Clearly formatted table or checklist structure

Part 2: Control Rationale Summary

A one-page narrative addressing:

- Theme selection
- Risk profile and breakdown
- Logic of controls
- Success criteria
- Fit within SMDC's current project state

Optional: Include stakeholder quotes or persona insights if drawn from Milestone 3.

Toolkits and Learning Resources

- [Control Design Mini Guide \(Appendix\)](#)
- [Sample Preventive Control Checklist](#)
- [Milestone 3 Risk Theme Memo](#)
- [SMDC User Personas or Stakeholder Profiles](#)

- [Example from real-world healthcare dashboard project \(if available\)](#)
- [Control Scoring Worksheet \(for future milestones\)](#)

Critical Reflection

Answer the following prompts in 200–300 words:

- How did breaking a broad theme into specific risks clarify your thinking?
- Which control was hardest to design—and why?
- What assumptions did you need to test or challenge in choosing the owner or timing?
- How might these controls build trust inside the team—or outside with users or clinicians?
- What would make one of these controls fail in real life?

Quality Control Review

Verify:

- One theme selected and clearly justified
- 3–5 specific risks defined under that theme
- One control designed per risk
- Control descriptions include all key elements (owner, timing, trigger, success, etc.)
- Checklist format is structured, usable, and clear
- Rationale summary is thoughtful and grounded in real project constraints
- Reflection is self-aware, honest, and specific
- File is labeled and versioned for future reuse

Final Wrap-Up and Submission

Submit your completed Preventive Control Checklist and summary narrative per instructor instructions. Your work may be:

- Reviewed by peers or instructors
- Used in later milestones for modeling or cost estimation
- Adapted into a real startup project simulation

This milestone shifts your role from analysis to design. From here forward, you are not just identifying what could go wrong—you are **structuring how to stop it**.

3.13: Milestone 6 – Strategic Framing- SWOT Analysis

Strategic Framing: Leveraging Strengths to Reduce Risk

Tool Applied: Strategic Risk TOWS Framework (SWOT Inversion for Risk Application)

Final Output: Risk-Focused TOWS Grid with Strategic Planning Brief

Scenario Briefing

MEMO

To: Embedded Strategic Risk Analysts

From: Kira L. Joshi, COO, SMDC

Date: Week 7 – Midpoint Strategic Review

Subject: Request for Strength-Driven Risk Framing and TOWS Synthesis

Team,

We've now mapped, ranked, validated, and diagnosed our key risk exposures across SMDC's dashboard initiative. We've built structural controls. We've named root causes. But now we need to step back and ask a different kind of question:

How can we use our **existing strengths** to reduce these risks—without adding more process, more stress, or more overhead?

This is not about creating new checklists. It's about **reframing risk planning as strategic advantage**.

I'm asking your team to build a modified TOWS-style framing grid: one that doesn't just analyze risk defensively, but identifies how our current resources, capabilities, and external tailwinds can be used **offensively** to neutralize or reduce risk.

We want to:

- Play offense with our core strengths
- Convert certain risks into opportunities
- Spot places where weaknesses and threats are intersecting and escalating
- Choose a small number of **high-leverage strategy pivots**—where one shift reduces many risks at once

Your framing brief will guide leadership as we make mid-phase decisions about partnerships, staffing, feature timing, and external communications.

If done well, this framing exercise will reduce both overreaction and overdesign.

You're not just protecting the project. You're unlocking its best path forward.

Kira

Action Strategy

Purpose of This Milestone

Most risk planning is defensive. It focuses on identifying what could go wrong and creating buffers or responses. In this milestone, you'll develop a more advanced skill: using **strategic framing** to address risk proactively.

You'll do this using a **TOWS matrix**—a strategic planning tool derived from SWOT (Strengths, Weaknesses, Opportunities, Threats), but reoriented to answer one specific question:

“How can we use what we already have to reduce the risks we already see?”

This milestone teaches you how to:

- Think across functions
- Identify organizational leverage points
- Move from risk maps to strategic interventions
- Guide leadership conversations about investment and de-scoping with clarity and confidence

Step-by-Step Guide

Step 1: Build a Classic SWOT Grid for SMDC

Create a four-quadrant SWOT analysis for SMDC using insights from previous milestones. Fill in the following categories

- **Strengths** (internal): What capabilities, values, or resources does SMDC already have that differentiate it or build resilience? Examples:
 1. Dedicated clinical advisors on staff
 2. Lightweight technical stack
 3. Fast internal communication
 4. Strong early user interviews
 - **Weaknesses** (internal): Where is SMDC exposed or limited by internal design, resources, or culture? Examples:
 1. No QA automation
 2. Siloed decision-making
 3. Vague HIPAA protocols
 4. Overreliance on third-party APIs
 - **Opportunities** (external): What tailwinds, trends, or partnerships could be used to reduce uncertainty or increase success? Examples:
 1. Public interest in wearable health tech
 2. Diabetes tech investment climate
 3. Strategic partnerships with EHR vendors
 4. Available government grant
 - **Threats** (external): What outside forces or constraints increase uncertainty or risk? Examples:
 1. Regulatory reclassification of digital tools
 2. Device manufacturer API restrictions
 3. Misinformation among patient population
 4. Competitor platform with clinical validation
5. Use stakeholder interviews, milestone research, and team reflections to complete each quadrant with 3–5 items.

Step 2: Build a TOWS Strategy Grid

Now invert the SWOT into a **TOWS strategic planning matrix**. This helps you generate **strategic actions** by asking:

- **Strength-Threat (ST) strategies:** How can we use our strengths to defend against our threats?
- **Strength-Opportunity (SO) strategies:** How can we use our strengths to exploit opportunities that also reduce risk?
- **Weakness-Threat (WT) strategies:** Where are we most vulnerable—and what can we do to stop those risks from compounding?
- **Weakness-Opportunity (WO) strategies:** How can external opportunities help us overcome internal weaknesses that cause risk?

In each box, write 2–4 specific strategies. These should be **risk-targeted**, not generic.

Example ST strategy:

- Use clinician team to validate alert thresholds early, before FDA scrutiny becomes a threat

Example WO strategy:

- Apply for pilot funding grant to build out QA team and reduce test coverage gaps

Each strategy should identify:

- What risk or exposure it targets
- What specific asset or resource it leverages
- What project action or change it implies

Step 3: Identify High-Leverage Strategies

Review your TOWS grid and select 2–3 **strategy pivots** that:

- Reduce multiple risks at once
- Are realistic within the current MVP timeline
- Strengthen both performance and credibility
- Create value across internal and external stakeholders

Write a brief analysis of:

- Why these strategies are important now
- How they will reduce or reshape specific risks
- What assumptions must hold true for them to succeed
- What tradeoffs they may introduce

This forms the core of your strategic planning brief.

Your Deliverable

Part 1: SWOT Grid

A four-quadrant grid listing:

- At least 3–5 entries per category
- Specific, risk-relevant insights (not generic business language)
- Clarity on internal (SW) vs. external (OT) distinctions

Part 2: Risk-Oriented TOWS Strategy Grid

A four-quadrant grid naming:

- 2–4 ST, SO, WT, and WO strategies
- Each strategy labeled with the risk(s) it addresses
- Brief explanation of logic behind the strategy
- Optional: alignment with a milestone risk theme or stakeholder concern

Part 3: Strategic Planning Brief

1–2 page memo summarizing:

- Top 2–3 high-leverage strategies
- Why they matter now
- What risk(s) they reduce
- What investment, communication, or planning shift they require
- What tradeoffs or timing implications they bring

Tone: professional, persuasive, and grounded in team and resource realities.

Toolkits and Learning Resources

- [TOWS Matrix Planning Guide \(Appendix\)](#)
- [Sample SWOT for Health-Tech Startup](#)
- [Milestone 2–5 Risk Summaries](#)
- [Stakeholder Voice Synthesis \(Milestone 3\)](#)
- [SMDC Strategy Brief or Project Charter](#)

Critical Reflection

Answer the following in 200–300 words:

- Which strategy quadrant (ST, SO, WT, WO) was hardest to fill—and why?
- Which strategy felt powerful—but risky?
- What new thinking emerged from connecting opportunities to weaknesses?
- What role should equity and inclusion play in choosing which risks to address?
- How might this exercise shift how leaders allocate resources?

Quality Control Review

- SWOT grid completed with clear, specific insights
- TOWS matrix includes at least 2–4 strategies per quadrant
- Each strategy clearly connects to risk reduction
- Strategic planning brief highlights 2–3 viable, realistic pivots
- Reflection addresses strategic tradeoffs and clarity
- Submission is polished, labeled, and ready for reuse in Milestone 8

Final Wrap-Up and Submission

Submit your completed SWOT-TOWS packet—including grid files, planning brief, and reflection—according to course instructions.

You will draw on this strategic framing again in:

- Milestone 8 (Stakeholder Integration and Conflict Mapping)
- Milestone 10 (Cost-Based Decision Modeling)
- Milestone 12 (Quantitative Risk Validation)

This milestone prepares you to **think like a strategist**, not just a risk analyst. It's not about listing weaknesses—it's about naming **where to push and when**.

4: PART III- REFLECTION, EXTENSION AND INTEGRATION

Introduction: From Tools to Insight. From Decisions to Identity.

You've reached the third and final section of the practicum.

If the earlier milestones taught you how to see, structure, and respond to risk, this section asks a deeper question:

What does it mean to be a **risk-aware leader**—not just for one project, but across teams, roles, and time?

Part III is where everything you've built, noticed, misunderstood, and corrected gets examined—not just for technical correctness, but for **meaning**.

This is not the end of your learning.

This is where you **integrate** it.

What This Section Covers

Part III includes two chapters, each focused on synthesizing your experience:

Chapter 4.1: Building a Risk-Aware Team Culture

You'll examine how organizations (and individuals) develop habits that either amplify or suppress risk. Using models like SEW (Sensation–Emotion–Want), collaboration diagnostics, and organizational memory frameworks, you'll explore how **culture shapes what risks get noticed, ignored, or acted upon**.

Chapter 4.2: Portfolio Risk Integration and Final Recommendations

Here, you'll review your full body of milestone work. You'll identify recurring themes, conflicting perspectives, and areas of growth. You'll construct a narrative that not only explains what you did—but shows how you thought through it, and how you would lead differently next time.

There's also an optional writing assignment: the **Risk Culture White Paper**. It invites you to synthesize your beliefs, values, and practices into a publishable, professional reflection on what risk leadership looks like in real teams.

Why Reflection Matters in Risk Work

It's easy to think of risk management as something procedural: log the risk, assign a score, monitor it, move on.

But that's not how real projects unfold.

Risk lives in emotion, power dynamics, unspoken assumptions, and broken memory systems. That's why teams can repeat the same mistakes—even when they have the right tools.

This section gives you space to:

- Identify **where your thinking shifted**
 - Explore **how human factors influenced risk**
 - Name **which habits you want to carry forward**
 - Reflect on **what kind of risk leader you are becoming**
-

Who You Are Now

If you've moved through all 12 milestones, you've already:

- Built professional-grade tools
- Managed tradeoffs and misalignment
- Practiced decision-making under constraint
- Designed controls that impact systems and people
- Reflected across emotional, behavioral, and technical dimensions of risk

Now it's time to **make meaning from that work**—not to repeat what you did, but to integrate it into how you think and who you are.

What You'll Leave With

By the time you complete Part III, you'll have:

- A clear articulation of your **risk leadership voice**
- A synthesis of your portfolio and its learning arc
- A deeper understanding of how teams succeed—and fail—in managing risk
- A personal roadmap for what kind of systems, culture, and leadership you want to build in your future work

This is where your tools become transferable.

This is where your experience becomes insight.

This is where your work becomes identity.

Welcome to the final stretch.

You're not just finishing a book—you're launching the next version of yourself.

4.1: Chapter 1 – Building a Risk-Aware Team Culture

4.1.1: SEW Model (Sensation–Emotion–Want)

4.1.2: Collaboration and Communication in Risk

4.1.3: Organizational Memory and Control Mindset

4.2: Chapter 2 – Capstone Integration- Portfolio Risk Assessment

4.2.1: Integrated View of Risk Across SMDC

4.2.2: Presentation of Final Recommendations

4.2.3: Risk Culture White Paper

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4.1: Chapter 1 – Building a Risk-Aware Team Culture

Introduction: Risk Culture Is What Happens When No One Is Watching

By the time a risk becomes visible in a dashboard, a sprint demo, or an incident report, it has usually been alive—unspoken, unnoticed, or unresolved—for quite some time. Why does that happen?

Because risk isn't just a technical variable or a planning exercise. It is a reflection of culture: how a team **perceives, shares, ignores, escalates, and remembers** uncertainty.

The most powerful risk mitigation strategies don't begin with a matrix. They begin with a meeting. A gut reaction. A teammate pausing and saying, "I'm worried about this."

This chapter is about the **invisible systems** that shape those moments: the emotional cues, collaboration habits, and memory structures that define how a team actually manages risk—not just how they claim to.

In this chapter, you'll explore the three foundational building blocks of a risk-aware culture:

- **4.1.1: SEW Model (Sensation–Emotion–Want)**
How emotional reactions to uncertainty shape decision-making and silence
- **4.1.2: Collaboration and Communication in Risk**
How group behaviors, power dynamics, and communication norms either surface or suppress critical signals
- **4.1.3: Organizational Memory and Control Mindset**
How teams retain (or lose) lessons about risk across time, tools, and personnel shifts

Together, these form the core of what it means to not just identify risk—but to lead through it.

Why This Matters at SMDC (and Everywhere Else)

SMDC, like any startup or early-stage project, doesn't have a mature bureaucracy or long-established risk protocols. It is moving fast, building under pressure, and constantly adjusting its plan. This is exactly where risk culture is most important—and most fragile.

You've already seen how SMDC faces:

- Tension between patient experience and product design
- Conflicting priorities between clinicians and developers
- Tight deadlines, limited budgets, and pressure to deliver quickly
- A mission that matters—to real people living with diabetes every day

In this kind of environment, **culture becomes the control system**. It fills in the gaps between checklists, tools, and timelines. It determines whether risks are seen early or late, discussed or avoided, addressed or denied.

Risk-aware culture is what turns a group of specialists into a **responsive, adaptive, self-correcting team**.

It's what makes it possible to:

- Catch a usability failure before it becomes a patient harm
- Name a regulatory risk before it escalates to legal liability
- Redesign a decision after hearing what no one wanted to say out loud

What Risk Culture Is (and Isn't)

Risk culture is not:

- A training video
- A policy manual
- A one-time retrospective
- A job title ("That's the Risk Analyst's problem")

Risk culture is:

- How comfortable people feel naming discomfort
- What happens when someone disagrees with leadership
- How the team handles bad news
- Whether people are rewarded for escalation—or punished for delay
- What people remember, forget, or pretend never happened

In other words, it's not the tool. It's how the tool is used when things go wrong.

From Tools to Habits to Mindsets

Throughout this course, you've used structured tools: RBS, matrices, control checklists, decision trees. These are important—but they don't function in a vacuum.

The effectiveness of those tools depends on **team habits and shared mental models**, like:

- "We pause when something feels off, even if it's not proven."
- "We expect every control to evolve—and that's not failure."
- "We ask, 'What are we missing?' regularly, not just when prompted."
- "We document what we learn, not just what we plan."
- "We revisit risks after release—not just before."

These are not just habits. They are cultural anchors.

In the remaining sections of this chapter, you'll explore three practical and deeply human ways to build and reinforce them:

- **SEW:** Understanding what risk *feels* like
- **Collaboration:** Surfacing risk through team dialogue
- **Memory:** Retaining what risk *taught* us

Each is essential. Together, they help turn risk management from a compliance task into a leadership capacity.

4.1.1: SEW Model (Sensation–Emotion–Want)

Mapping the Inner Signals of Risk

Why Human Risk Awareness Starts Below the Surface

Before any risk appears on a register, in a planning meeting, or in an incident report—it first appears somewhere less visible:

- A pause.
- A wince.
- A mental hesitation.
- A sudden need to justify something that didn't feel quite right.

These signals rarely show up in technical documentation. But they are the **first and most honest indicators** of emerging risk. Yet because they are emotional, sensory, and subjective, they are also the easiest to dismiss.

To build a risk-aware team culture, we must treat these signals not as noise—but as **primary data**.

That's where the **SEW Model** comes in.

The SEW Model – Sensation, Emotion, Want

SEW stands for **Sensation** → **Emotion** → **Want**, a three-step internal processing chain that everyone goes through—whether or not they speak or act on it.

Overview of the SEW Model components, showing how sensation, emotion, and want shape internal responses to risk situations.

Component	What It Captures	Example
Sensation	The immediate, often physical or intuitive response to a situation	"My stomach tightens when we skip patient feedback"
Emotion	The internal emotional response to that sensation	"I feel nervous that we're rushing"
Want	The impulse or desire that arises from the emotion	"I want to push back, but I also want to avoid conflict"

This chain takes seconds—but its consequences can last months.

Teams that ignore SEW signals end up with:

- Repeated issues that were "felt" but never voiced
- Frustrated team members who feel unheard
- Escalated risk that could've been reduced early
- A culture where people learn to suppress risk instincts

Why SEW Belongs in a Risk Leadership Toolkit

Most risk tools help teams analyze, track, or respond. SEW helps teams **feel**, name, and surface risk early—often before it's measurable.

SEW is especially useful when:

- A team is moving too fast to reflect

- Emotional stakes are high (e.g., public demos, clinical launches)
- Power dynamics make speaking up difficult
- Teams are experiencing change, burnout, or role conflict
- A risk *keeps reoccurring* despite process fixes

In short, SEW helps make visible the **emotional landscape of risk**.

How SEW Shows Up in Project Life

Let's look at how SEW might play out across different stakeholder groups at SMDC.

Engineer's SEW Loop

Sensation: Developer sees a regression bug in the alert logic—again.

Emotion: Feels irritated and self-critical. Wonders why QA isn't catching this.

Want: Wants to fix it silently and move on to avoid embarrassment.

Risk Amplified: No systemic conversation happens. Same bug recurs next sprint.

Patient's SEW Loop

Sensation: Patient sees a new dashboard summary that suggests they're "out of control."

Emotion: Feels ashamed, confused, and frustrated.

Want: Wants to stop using the app entirely. Or worse—ignores future alerts.

Risk Amplified: Patient disengages, reducing both clinical outcomes and trust.

Product Manager's SEW Loop

Sensation: Notices a repeated request from clinicians to change alert categories.

Emotion: Feels defensive. Wonders if the team is questioning their roadmap.

Want: Wants to delay the conversation—says "Let's wait until after pilot."

Risk Amplified: Misalignment grows, clinicians feel unheard, and late-stage redesign becomes more expensive.

Where to Look for SEW Clues

SEW reactions are rarely verbalized. But they leave fingerprints across team life:

- **Body language:** Avoided eye contact, deep sighs, rushed responses
- **Language shifts:** "It's fine," "Let's not get into it," "That's above my pay grade"
- **Meeting behaviors:** People go quiet when certain topics arise
- **Emails/slack:** Defensive tone, over-justification, or delays in replying
- **Task avoidance:** Repeatedly deprioritizing something that's "technically done" but feels risky

Your job as a risk-aware team member is to **notice these patterns—not judge them**—and make space for others to voice their internal reactions safely.

Using SEW in Risk Leadership

Self-Awareness: Use SEW as a Personal Diagnostic

Ask yourself in real time:

- What just triggered me?
- What emotion followed?
- What do I find myself wanting to do—or avoid?

Example:

"I felt tension when the stakeholder dismissed my comment. I felt embarrassed. I now want to stay quiet—even though I still think I'm right."

Naming this SEW chain can shift you from reaction to reflection—and allow a more thoughtful next move.

Team Retrospectives: Make SEW Explicit

Instead of asking only "What went wrong?" ask:

- What moment triggered unease? (Sensation)
- How did we feel in that moment? (Emotion)
- What did we want to do—or hold back from doing? (Want)

This turns reflection into empathy. You surface not just risk facts—but the emotional climate that enabled or disabled action.

Risk Control Design: Bake SEW into Systems

When defining thresholds, alerts, or response rules, ask:

- What might this trigger **emotionally** for a user or team member?
- What **wants** might that emotion produce—e.g., hide, delete, blame, disengage?

Then build in:

- Supportive messaging
- Reset options
- Clear escalation steps
- Room for pause and processing

Use SEW to De-Escalate Conflict

If someone is resisting a task or pushing too hard, try to decode their SEW:

- What are they sensing that we might not be seeing?
- What emotion are they protecting or managing?
- What do they want—clarity, recognition, protection, control?

This turns tension into inquiry—and inquiry into risk prevention.

SEW Across the Milestones

The SEW model applies throughout the entire CIS 95C risk process:

Examples of how the SEW Model can be applied across selected CIS 95C milestones to surface emotional patterns, communication risks, and decision-making behaviors.

Milestone	SEW Application
1 – RBS	What unspoken risks did people hesitate to name?
3 – Stakeholder Feedback	Did anyone’s emotional response shift their scoring of a risk?
5 – Root Cause	Were there SEW patterns that created silence or avoidance loops?
7 – Patient Risk Mapping	What sensory or emotional triggers might cause disengagement?
9 – Control Prioritization	Were any controls deprioritized because someone wanted to avoid conflict or cost?
11 – Contingency Planning	What emotional responses might occur during risk activation—and how can we manage them?

Closing Reflection: Risk Begins with a Feeling

We often think of risk as a calculation. A probability. A score.

But in real projects, the first sign of risk is almost always human.

A flicker of doubt.
A delayed conversation.
A colleague walking away from something they used to care about.

The SEW Model gives you a tool to catch those signals. To name them. To listen with curiosity, not judgment. To design with emotion in mind—not as a weakness, but as **a first line of risk intelligence**.

In the next section—**Collaboration and Communication in Risk**—you’ll learn how to build teams that make it safe to speak early and often... because risk isn’t just what we measure.

It’s what we feel.

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4.1.2: Collaboration and Communication in Risk

Introduction: Risk Lives Between People

Risk doesn't just emerge from code, contracts, or compliance gaps—it emerges in the **spaces between people**:

- When a UX designer assumes a clinician will test language tone.
- When a developer fixes a silent bug but doesn't log it.
- When a patient advocate feels outnumbered and holds back.
- When a product manager hears bad feedback and delays sharing it with leadership.

These are not “project delays” or “communication issues”—they are **organizational risk events**. And they are far more common than technical failures.

Risk is fundamentally a **collaborative reality**—and how teams talk (or don't talk) about it is one of the clearest predictors of success or failure.

This section focuses on how collaboration norms, interpersonal dynamics, and communication rituals shape how risk is surfaced, understood, shared, or buried.

Why Communication Is a Risk Control

Most teams talk about risk like a static object: “Here's the risk. Let's log it.”

But risk is dynamic. It evolves. And more importantly, it's shaped by:

- Who names it
- Who hears it
- Whether it is interpreted as feedback, threat, or distraction
- How it travels (or doesn't) through a team

In this sense, **communication itself is a risk system**. A good one surfaces risk early. A bad one creates blind spots, bottlenecks, and blame spirals.

Four Team Behaviors That Amplify Risk

False Alignment

Everyone nods during the meeting. But they walk away with different interpretations of what was agreed to—or worse, with unspoken concerns.

Example:

In a design review, the alert language is approved. The clinical advisor thinks it will be reworded before launch. The engineer thinks it's final. No one follows up. It ships.

Result: A week later, patients report that the alert feels accusatory and unclear. It must be pulled.

Quiet Despair

Team members repeatedly notice issues but stop bringing them up—because they weren't heard before, or because the team avoids tension.

Example:

An engineer notices increasing error logs on the data sync layer. They mention it once but are told it's not a priority. They stop surfacing it.

Result: A month later, during pilot, sync failures cause alert mismatches and confusion for both patients and clinicians.

Overload Without Prioritization

Everyone is “communicating,” but no one knows what to pay attention to. Slack threads, Jira tickets, email updates—all full of alerts, questions, and pings.

Example:

Three separate risk issues are logged in different places. No one assigns ownership. No one integrates them.

Result: By the time a risk reaches leadership, it's already activated—and requires escalation.

Assumed Understanding Across Roles

Risk vocabulary is not shared. What “data loss” means to Engineering is different than what it means to a patient or a compliance officer.

Example:

The dev team says, “We had minor data dropouts last week, nothing critical.” The clinician hears, “Patient records were incomplete.” The COO hears, “We violated trust.”

Result: Mismatched escalation. Mismatched solutions. Missed opportunity for aligned response.

The Anatomy of Risk-Aware Communication

To build a risk-aware culture, teams need to do more than “talk more.” They need to **communicate about risk with intention, precision, and safety.**

Make Risk Language Explicit

Avoid vague phrases like:

- “Let’s just keep an eye on it.”
- “It should be okay.”
- “I think we’re covered.”

Replace with specific risk language:

- “We’ve identified a gap in patient understanding due to alert overlap. Let’s document it, assign a reviewer, and track it across the next two sprints.”
- “We are currently accepting an untested edge case for this release. Is that documented and owned?”

This helps teams know what they’re agreeing to—and what they’re not.

Normalize Talking About Uncertainty

Risk-averse teams are often *certainty-obsessed*. They wait to raise issues until they’re proven or urgent. This leads to late action and missed prevention.

Risk-aware teams say:

- “Here’s something I’m unsure about.”
- “This might be nothing, but...”

- “I’m worried we’re optimizing for speed and not seeing this pattern.”

The earlier a concern is voiced—even if it’s fuzzy—the cheaper and easier it is to test, model, or address.

Define the Risk Communication Contract

Set team norms for risk communication like:

Team communication behaviors and practices that support safe, regular risk surfacing.

Behavior	Practice
Weekly risk surfacing	“What new risks did we encounter or sense this week?”
Retro habit	“What risk went unspoken last sprint?”
Conflict flag	“If we disagree on risk, we pause—don’t push.”
Escalation safety	“No blame for surfacing. Ever.”

This turns communication from personality-driven (e.g., “Do I feel safe?”) to **system-driven** (e.g., “This is just what we do here.”)

Map Information Flow for Risk Signals

Ask:

- Where does risk information originate?
- How does it travel?
- Where does it get blocked or distorted?

Create simple “risk signal flow maps” showing:

- Who reports?
- Who reviews?
- Who decides?

Now you can tune that system for visibility and clarity.

Cross-Functional Risk Conversations: A Sample Guide

In real-world teams like SMDC, risk conversations often occur **between different languages**: clinical, technical, legal, product, and user advocacy.

Here’s a conversation starter format you can use to bridge perspectives:

“Here’s the concern as I see it...”
“Here’s what that might look like to [other role]...”
“Here’s the impact I think it could have across roles...”
“What’s missing from this picture?”
“What’s the risk of doing nothing?”

This makes room for reflection **before** reaction. It builds alignment **before** decisions are locked.

How Communication Practices Link to Risk Planning Tools

Communication practices required to use selected risk planning tools effectively across CIS 95C milestones.

Risk Tool	Collaboration Dependency
RBS (Milestone 1)	Requires open brainstorming and shared labeling
Impact Matrix (Milestone 2)	Requires group agreement on definitions of "impact"
Stakeholder Consensus (Milestone 3)	Requires comfort surfacing disagreement
Control Design (Milestone 4)	Requires negotiation of roles, responsibilities
Synthesis Maps (Milestone 8)	Requires empathy across roles

A brilliant risk register can fail if no one feels safe updating it.

A well-designed decision model can be ignored if it was made in a silo.

A beautifully written contingency plan won't matter if people avoid conflict during a crisis.

Case Example: The Silent Escalation

Context:

An SMDC pilot patient reports that the trend alerts are confusing. The message "Your readings are irregular" triggers anxiety and disengagement.

Communication Breakdown:

- UX thought the message was clear.
- Clinical thought it was too vague.
- Product assumed both sides had approved it.
- No one brought it up because "we already signed off."

Outcome:

Confusion turns into mistrust. Mistrust leads to disengagement. The risk becomes real—and was entirely avoidable.

What a Risk-Aware Team Might Have Said:

"Even if we signed off, I'm getting repeated feedback that the language might not be landing. Can we pause and do a quick alignment review before pilot?"

That one sentence could have saved the team 3 weeks of crisis management.

Closing Reflection: Dialogue Is a Control System

Every risk control is only as effective as the conversation around it.

Risk-aware teams don't just ask, "What could go wrong?"

They ask, "**Who needs to say what—when, how, and to whom—for this to work?**"

If you want to reduce risk in your project:

- Don't just audit your tools.
- Audit your conversations.

In the next section, we'll look at what happens after risk has passed—and how teams either learn and grow, or forget and repeat. That's the work of **organizational memory**—and it's our final pillar in building a risk-aware team culture.

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4.1.3: Organizational Memory and Control Mindset

How Teams Remember (or Forget) What Risk Taught Them

Introduction: The Cost of Forgetting

Risk isn't just what happens when something goes wrong. It's also what happens when a team doesn't **learn from what went wrong last time**.

You've probably seen this pattern before:

- A failed feature is quietly buried—never discussed again
- A near-miss is mentioned once in Slack, then forgotten
- Someone who holds key context leaves, and with them, the memory of the issue
- A fix is implemented—but the root cause remains unexamined

These are not isolated failures. They're signs of a team with weak **organizational memory**—a system that loses its hard-earned knowledge to silence, turnover, or velocity.

In this section, we explore how to build a team memory that lasts. Not just by writing better documentation, but by designing rituals, mindsets, and tools that treat **learning from risk** as a core project function.

What Is Organizational Memory in Risk?

Organizational memory is the ability of a team to:

- Remember key decisions and the context behind them
- Retain awareness of prior risk events and their causes
- Avoid repeating mistakes already paid for
- Transfer risk knowledge across sprints, roles, and handoffs

It's not about being nostalgic. It's about **converting pain into wisdom**.

When done well, organizational memory becomes:

- A shared reference point ("This is what happened last time we skipped QA.")
- A language of caution and insight ("Watch for stakeholder drift during sprint 4—remember the alert config incident.")
- A way to onboard new team members into not just process—but **risk history**

Why Memory Is Often the Weakest Part of Risk Management

1. **Speed Culture**

Agile teams are often built for momentum, not reflection. The post-mortem is scheduled—then rescheduled—then quietly canceled.

2. **Emotional Avoidance**

If something went wrong and caused conflict, people would rather forget than revisit. Teams confuse **closure** with **avoidance**.

3. **Turnover**

People change teams, roles, and companies. Risk lessons walk out the door unless they're explicitly captured and transferred.

4. **Tool Fragmentation**

Risk signals are scattered across Jira, Slack, email, documents, verbal discussions. No central place holds the story.

5. Lack of Incentives

There's no KPI for "how well we learned from that." Teams measure delivery, not retention.

The Control Mindset: From Reaction to Evolution

To build organizational memory, you need more than documentation. You need a **control mindset**—the belief that risk lessons should shape the system itself.

A team with a control mindset:

- Doesn't just fix issues—they **document why the issue emerged**
- Doesn't just assign blame—they **assign pattern awareness**
- Doesn't just update a ticket—they **update a protocol or guideline**
- Treats every risk event as a potential upgrade to the operating system

This mindset turns teams into **adaptive organisms**, not just reactive groups.

Five Practices to Build Organizational Memory in Risk

After-Action Reviews (AARs)

Short, structured sessions that ask:

- What happened?
- What worked?
- What didn't work?
- What do we need to remember for next time?

Best done **within 24–72 hours** of a risk event or decision point.

Pro tip: Don't wait for failure. AARs work for **successful launches** too—where the risk was *avoided*. Ask: "What nearly went wrong, and why didn't it?"

Living Risk Logs

Instead of creating one static risk register at the beginning of a project, treat risk as a **dynamic, evolving artifact**.

- Keep it visible
- Update it regularly
- Tag risks with outcomes: *Avoided, Occurred with Control, Activated Unexpectedly*
- Include links to root cause docs, chat transcripts, decisions

This helps teams track how their understanding of risk evolves over time.

Decision Narratives

Every high-risk decision should include a brief written narrative:

- What options were considered
- Why a certain path was chosen
- What risks were accepted, mitigated, or deferred

This prevents future teams from saying, "Why did they do this?" without context.

It also builds protection when leadership changes or audits happen.

Cross-Sprint Debrief Threads

At the end of each sprint or milestone, prompt each team function to submit a brief reflection:

- “What risk surfaced for us this sprint?”
- “What’s still lingering or unresolved?”
- “What do we want future teams to remember?”

These can be collected in a Slack thread, a Notion doc, or a voice note—whatever works. It’s the **ritual that matters**.

Risk Memory Champions

Designate one rotating team member to be the “memory keeper” for the sprint:

- Captures risk observations
- Tracks emerging patterns
- Flags repeated issues
- Synthesizes learnings into 1-slide summaries for retros

This creates distributed responsibility for memory—and makes it visible, not invisible.

Organizational Memory at SMDC: What It Could Look Like

Imagine SMDC had practiced strong memory systems from day one. Here’s what would be different:

Comparison of risk outcomes with and without organizational memory systems in SMDC project scenarios.

Risk Event	Without Memory	With Memory
Alert Confusion	Clinician flags issue too late; team repeats language mistake	Alert clarity issue logged after pilot 1, with language test protocol added
Data Sync Dropouts	Bug fixed silently twice before being escalated	Root cause documented, preventive control added in Sprint 3
Consent Misunderstanding	Patients complain, trust drops	Patient feedback captured and used to redesign flow in Sprint 5
Developer Burnout	Team member leaves, knowledge lost	Dev leaves behind decision narratives and debrief notes for onboarding

Strong memory doesn’t just protect against recurrence. It increases **team intelligence over time**.

From Risk Response to Risk Evolution

Without memory, every new risk is treated as a surprise.

With memory, risk becomes an opportunity to evolve.

That’s what separates reactive teams from risk-aware organizations:

- Reactive teams fix problems.
- Risk-aware organizations **get better because of them**.

This requires intention. Discipline. And above all, a mindset that says:

“We’re not just here to avoid failure. We’re here to **learn from it, evolve with it, and teach others through it.**”

Closing Thought: Culture Is the Memory We Choose to Keep

At the end of the day, risk isn't just about what happens—it's about what teams do **next**.

Do they forget, hide, move on?

Or do they remember, reflect, and embed what they've learned?

A risk-aware culture is a **remembering culture**.

One that collects stories, learns aloud, and builds systems that get smarter over time.

In your final project reflection, you'll be invited to think across everything you've built—from RBS to controls to decisions—and ask:

“What do I want future teams to remember that we learned the hard way?”

Let that memory be your legacy as a risk leader.

4.2: Chapter 2 – Capstone Integration- Portfolio Risk Assessment

Introduction

Throughout this practicum, you have engaged in a journey that mirrors the evolution of professional risk management itself. At the beginning of the course, risk may have appeared to be a collection of tools, worksheets, matrices, and planning exercises. You identified risks, categorized them, scored them, validated assumptions, designed controls, analyzed root causes, and developed response plans. Each milestone introduced a new framework and a new way of thinking about uncertainty.

Yet one of the most important lessons in risk management is that no individual tool can capture the complexity of real-world decision-making.

Organizations do not fail because they lack risk registers.

Projects do not struggle because a matrix was incomplete.

Teams rarely experience difficulty because they forgot to create a diagram.

Instead, challenges emerge because risks interact across systems, people, assumptions, emotions, incentives, communication channels, organizational structures, and culture. Technical issues become communication failures. Communication failures become trust issues. Trust issues become leadership challenges. Leadership challenges eventually become strategic risks.

Risk is not isolated.

Risk is interconnected.

As a result, effective risk management requires more than analysis. It requires synthesis.

The purpose of this chapter is to help you make that transition.

Rather than focusing on individual milestones, you will step back and examine the SMDC project as a complete system. You will explore how risks evolved over time, how decisions created unintended consequences, how stakeholder perspectives influenced outcomes, and how organizational culture shaped the team's ability to recognize, discuss, and respond to uncertainty.

This chapter serves as the culmination of the entire practicum.

It is where you move from completing activities to constructing meaning.

It is where you move from documenting risk to understanding risk.

It is where you move from being a student of risk management to becoming a practitioner of risk leadership.

Why Integration Matters

One of the greatest mistakes organizations make is treating risks as isolated events.

A technical team may focus exclusively on software defects.

A compliance team may focus exclusively on regulations.

A project manager may focus exclusively on schedules and budgets.

A product team may focus exclusively on user adoption.

While each perspective is valuable, no single perspective is sufficient.

Real risks often emerge between organizational boundaries.

For example:

A technical integration problem may delay data delivery.

The delayed data may reduce patient trust.

Reduced trust may lower adoption.

Lower adoption may create financial pressure.

Financial pressure may encourage shortcuts.

Shortcuts may create regulatory exposure.

What began as a technical problem becomes a strategic problem.

Throughout the SMDC case study, you have encountered examples of this interconnectedness repeatedly.

Patient safety concerns were connected to alert design.

Alert design was connected to communication practices.

Communication practices were connected to stakeholder alignment.

Stakeholder alignment was connected to organizational culture.

Organizational culture influenced whether concerns were voiced or ignored.

By the end of the practicum, you should recognize that risk management is fundamentally about understanding these connections.

The strongest risk leaders do not simply identify risks.

They identify relationships.

They see patterns.

They recognize feedback loops.

They understand how small decisions accumulate into larger outcomes.

This chapter provides an opportunity to demonstrate those capabilities.

The Evolution of Your Role

Throughout the practicum, your responsibilities have expanded.

At the beginning of the course, you were primarily asked to identify risks.

As the practicum progressed, you were asked to evaluate risks, prioritize concerns, challenge assumptions, design controls, and prepare responses.

Now, your role changes again.

You are no longer simply a risk analyst.

You are becoming a risk leader.

This transition occurs through three stages.

Stage 1: Risk Historian, Interpreter, and Architect

Section 4.2.1 – Integrated View of Risk Across SMDC

The first stage of leadership is understanding.

In this section, you examine the project as a whole and identify patterns that emerged across milestones.

You will explore questions such as:

- Which risks appeared repeatedly?
- Which risks evolved over time?
- Which assumptions proved inaccurate?
- Which controls succeeded?
- Which controls failed?
- Which stakeholder concerns were ignored?
- Which behaviors contributed to recurring problems?

You are no longer focused on individual deliverables.

You are focused on relationships, patterns, and systems.

Like a historian, you examine what happened.

Like an interpreter, you explain why it happened.

Like an architect, you identify opportunities for improvement.

The goal is not to judge decisions after the fact.

The goal is to understand how those decisions emerged and what can be learned from them.

Stage 2: Risk Strategist and Change Agent

Section 4.2.2 – Presentation of Final Recommendations

Insight without action has limited value.

Organizations improve when understanding is translated into decisions.

In this section, you move beyond diagnosis and begin developing recommendations.

You will identify:

- Priority risk themes
- Communication improvements
- Control enhancements
- Organizational learning opportunities
- Strategic actions for leadership

This is where you begin exercising influence.

You are not merely reporting findings.

You are advocating for change.

You are helping others understand:

- What matters most
- Why it matters
- What should happen next

The quality of a recommendation is not measured solely by its technical accuracy.

It is measured by its ability to help people act.

This requires clarity, persuasion, empathy, and strategic thinking.

Stage 3: Thought Leader and Culture Builder

Section 4.2.3 – Risk Culture White Paper

The final stage of leadership is vision.

Organizations can redesign systems.

They can implement controls.

They can improve processes.

Yet sustainable improvement occurs only when culture evolves.

Culture determines:

- What people talk about
- What people avoid
- What gets rewarded
- What gets ignored
- What gets remembered
- What gets repeated

This section asks you to think beyond the SMDC project.

It asks you to consider:

- What makes a healthy risk culture?
- How should organizations discuss uncertainty?
- How should leaders respond to discomfort?
- What role does emotional intelligence play in risk management?
- How can organizations become more adaptive and resilient?

The Risk Culture White Paper provides an opportunity to articulate your own philosophy of risk leadership.

It represents the culmination of everything you have learned throughout the practicum.

A Different Way of Thinking About Risk

Many organizations view risk management as a compliance activity.

Complete the form.

Update the register.

Review the checklist.

Submit the report.

While these activities have value, they represent only a small portion of what effective risk management requires.

The most significant risks are often discovered through:

- Difficult conversations
- Conflicting perspectives
- Emotional reactions
- Stakeholder concerns
- Organizational memory
- Pattern recognition

The strongest organizations understand that risk is not merely technical.

It is social.

It is behavioral.

It is cultural.

It is human.

Throughout Part III, you have explored these ideas through the SEW Model, collaboration practices, and organizational memory systems.

This chapter asks you to integrate those perspectives into a unified view of leadership.

Learning Objectives

After completing this chapter, students will be able to:

Systems Thinking

- Analyze relationships among risks across multiple milestones.
- Recognize recurring patterns and feedback loops.
- Evaluate how risks evolve over time.

Organizational Analysis

- Assess the influence of communication, collaboration, and organizational memory on risk outcomes.
- Identify cultural factors that strengthen or weaken risk management.

Strategic Leadership

- Develop evidence-based recommendations for organizational improvement.
- Communicate risk findings effectively to leadership audiences.
- Prioritize actions that improve resilience and adaptability.

Reflective Practice

- Examine personal assumptions about risk.

- Reflect on leadership growth throughout the practicum.
- Articulate a personal philosophy of risk-aware leadership.

Chapter Roadmap

Chapter Roadmap

Section	Leadership Role	Central Question
4.2.1 Integrated View of Risk Across SMDC	Historian, Interpreter, Architect	What happened, and what patterns emerged?
4.2.2 Presentation of Final Recommendations	Strategist, Advocate, Change Agent	What should we do differently moving forward?
4.2.3 Risk Culture White Paper	Thought Leader, Culture Builder	What kind of risk culture should we create?

Together, these sections represent the final transformation of the learner.

You begin as an observer of risk.

You become an interpreter of risk.

You become an advocate for change.

And ultimately, you become a builder of culture.

Closing Thought

Risk leadership is not the ability to predict the future.

It is the ability to help people navigate uncertainty together.

It requires curiosity instead of certainty.

Dialogue instead of silence.

Learning instead of blame.

Adaptation instead of rigidity.

The tools introduced throughout this practicum are valuable, but they are only tools.

The real work happens when individuals choose to ask difficult questions, challenge assumptions, listen to diverse perspectives, learn from failure, and act with courage when outcomes are unclear.

That is the challenge of leadership.

That is the purpose of this capstone.

And that is the opportunity that awaits you in the sections that follow.

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4.2.1: Integrated View of Risk Across SMDC

Tracing Patterns, Decisions, and Lessons Across All Milestones

Introduction: From Deliverables to Systems Thinking

By now, you've completed twelve milestones, each one giving you a new perspective on risk—how to identify it, structure it, evaluate it, control it, and prepare for its activation. But in real-world projects, risk is not linear. It doesn't live in one domain, one role, or one decision.

To lead risk effectively, you need to **zoom out** and ask:

- Where are the patterns across time, teams, and tools?
- Which risks recurred—and why?
- Where did we act early, and where did we delay?
- What happened between the lines—not just in our models, but in our team behaviors?

This section invites you to build an **integrated map of risk across the SMDC project simulation**. You're no longer just an analyst. You're a synthesizer. A strategist. A systems thinker.

The insights you develop here form the foundation for your final recommendations—and for how you show up in future teams.

Your Role: Risk Historian and Architect

As you complete this synthesis, you are stepping into the role of a **portfolio-level risk reviewer**—the person who collects signals from across sprints, departments, and decisions to draw meaningful conclusions and identify transformation opportunities.

Think of yourself as a:

- **Historian** – tracking what happened, when, and why
- **Interpreter** – connecting technical and emotional events
- **Architect** – shaping a set of forward-looking improvements

You are the one who sees **what the team couldn't see in the moment**—because they were too close, too rushed, or too afraid to name it.

What to Include in Your Integrated Risk View

Your synthesis should not be a repeat of your deliverables. Instead, it should pull together:

- Key themes and decisions from **each milestone**
- Recurring risks or control gaps
- Communication or collaboration issues (see Chapter 4.1.2)
- Emotional or behavioral risk signals (see Chapter 4.1.1 – SEW Model)
- Evidence of organizational memory—or its absence (see Chapter 4.1.3)

You may structure your analysis however you like, but here is a suggested format.

Suggested Structure: Portfolio Risk Integration Table

Portfolio risk integration table showing how key risks, controls, recurring issues, and SEW, collaboration, and memory factors connect across selected milestones.

Milestone	Primary Risk(s)	Key Decision or Control	What Worked	What Resurfaced	What SEW/Collaboration/Memory Factors Played a Role?
M1 – RBS	Data accuracy, alert fatigue	Created risk categories for alert misfire and UX breakdown	Clear structure	Alert confusion reappears in M7, M10	No follow-up dialogue recorded; risk categories siloed
M2 – Impact Matrix	Patient trust risks ranked low	Ranked risks by likelihood and impact	Prioritized integration risk early	Equity risks under-prioritized until M7	Quiet disagreement during ranking discussion
M4 – Preventive Controls	Alert configuration fatigue	Designed checklist for alert clarity	Owned by engineering	Lack of clinician feedback on alert tone	False consensus; no clinician sign-off
M7 – Patient Canvas	Shame, judgment, confusion	Identified emotional risks not captured earlier	Captured patient SEW in depth	Revealed blind spots in earlier risk definitions	Memory gap between M2-M7, patient voice under-represented
M10 – Decision Tree	Alert redesign vs. alert suppression	Modeled tradeoffs	Clear logic, supported alignment	Emotional impact of alert language not weighted	“Want to move quickly” overpowered “Want to protect trust”

Continue this table across all 12 milestones—or group them by phases (planning, control, decision, response).

Questions to Guide Your Analysis

Pattern Recognition

- Which risks appeared in multiple forms across milestones?
- Were there “root risks” that other issues kept branching from?

Emotional Signals (SEW)

- Where did team members hesitate to speak up?
- Where did silence or avoidance lead to delayed risk recognition?

Collaboration and Communication

- Which roles misunderstood each other’s risk concerns?
- Where did assumptions go untested?
- Where did too much “agreement” mask real disagreement?

Organizational Memory

- Where were past lessons captured and reused?
- Where did the same mistake reoccur due to lack of documentation or ritual?
- What practices (retros, tagging, control revisions) helped your team get smarter?

Output Options

You may present your Integrated View as:

- A written synthesis narrative (2–3 pages)
- A table-based cross-milestone map
- A slide deck summary with insights per phase
- A stakeholder-facing “lessons learned” memo
- A visual system diagram showing recurring risk paths

You’re encouraged to choose a format that:

- Helps you think clearly
- Demonstrates what you now see as a strategist
- Prepares you to present recommendations (next section)

Closing Reflection: You Are Now the Integrator

Anyone can fill out a risk template.

It takes deeper skill to step back and say:

“Here’s what we missed.”

“Here’s where the same issue re-emerged.”

“Here’s where our communication amplified risk instead of reducing it.”

“Here’s what I’ll do differently next time.”

This is your chance to show that you don’t just **do** risk—you understand it across **systems, stories, people, and time**.

4.2.2: Presentation of Final Recommendations

Translating Risk Insight Into Actionable, Team-Ready Strategy

Introduction: From Reflection to Leadership

By now, you've done what most project teams never do:

- You've surfaced risks that were hidden
- You've traced causes that were unspoken
- You've evaluated tradeoffs under pressure
- You've considered emotional, structural, and stakeholder-centered dimensions of risk
- And you've learned from every part of the system—even the parts that failed

But insight alone doesn't lead to change.

You now face the most important challenge of all: **communicating your learning in a way that others can act on.**

In this capstone section, you will **frame and present your final risk recommendations**. Whether as a formal report, a stakeholder briefing, or a leadership reflection, your goal is to take everything you've learned and translate it into a **clear, compelling call for action**.

This is not just a deliverable. It's your risk leadership voice in motion.

Your Role: Risk Strategist, Not Just Risk Reporter

You are no longer just "reporting" what happened during the SMDC project. You are:

- Prioritizing
- Synthesizing
- Advocating
- Translating risk into growth, structure, and memory

You are speaking directly to SMDC leadership, team members, and stakeholders. You are saying:

"Here's what matters now."

"Here's what needs to change."

"Here's how we'll protect trust, improve systems, and evolve together."

What to Include in Your Final Recommendations

Your recommendations should emerge directly from your integrated analysis (4.2.1), and they should reflect:

- **Patterns** you observed
- **Failures** that recurred
- **Controls** that worked—or didn't
- **Gaps** in communication, alignment, or learning
- **Culture-level improvements** (from Chapter 4.1)

You're encouraged to include both **specific actions** and **systemic improvements**.

Prioritized Risk Focus Areas

Choose 2–4 risk themes that remain most urgent. For each:

- Name the theme clearly
- Explain why it's still critical
- Link to specific milestones or events where it showed up
- Include 1–2 recommendations per theme

Example:

Theme: Alert Confusion and Patient Trust

Why it matters: This risk appeared in M2 (ranking), M4 (controls), M7 (patient canvas), and M10 (decision model). It poses both emotional and clinical safety risks.

Recommendation: Redesign alert configuration logic in collaboration with clinicians and patients using SEW-informed language testing protocols.

Communication and Collaboration Shifts

Based on your reflections from 4.1.2:

- What communication norms need to change?
- Where did silence or misalignment increase risk?
- What new rituals, roles, or expectations could reduce this?

Example:

“Establish a biweekly ‘Friction Forum’—a 30-minute safe space for anyone to raise uncomfortable concerns without needing to prove them first.”

Memory and Control System Improvements

Based on your insights from 4.1.3:

- What knowledge is at risk of being lost?
- What repeated errors or blind spots need a structural fix?
- How should SMDC upgrade its risk rituals, tools, or logs?

Example:

“Create a ‘Risk Trail’ log where each sprint documents not only what went wrong, but also what discomfort or disagreement was ignored—and why.”

Final Strategic Recommendations

Conclude with your top 3–5 big-picture takeaways. These should:

- Be **actionable**, not abstract
- Span across functions (not just one department)
- Reflect your **growth as a risk-aware leader**

Examples:

- “Redesign risk controls to include patient emotion pathways—not just technical triggers.”
- “Assign ownership to post-launch risk learning. Memory is too important to outsource.”
- “Shift from milestone-based alignment to continuous risk feedback—especially across engineering and clinical roles.”
- “Make escalation not just allowed—but expected.”

Output Formats (Choose One or More)

You may present your recommendations in whatever format best supports your voice, clarity, and audience.

Suggested options:

- Professional memo or briefing report
- Slide deck for stakeholder presentation
- Annotated visual synthesis (e.g., dashboard or journey map)
- Video presentation or voice-over with visuals
- Live or mock recorded risk review (instructor-facilitated)

Whichever format you choose, be sure it includes:

- A strong opening summary of your key conclusions
- Clear recommendations supported by evidence
- Cross-milestone synthesis (not a milestone-by-milestone repeat)
- A forward-looking tone of leadership—not just critique

Reflection Prompts (Optional but Encouraged)

Use these to prepare your presentation—or to include as a final written or spoken reflection.

- What was the hardest risk to name—and why?
- What would you do differently in your next project?
- What does risk leadership mean to you now?
- What conversations or systems need to change—before the next launch?
- How will you help the next team not just avoid risk, but grow from it?

Closing Thought: Risk Leadership Is a Social Act

It's easy to manage risk on paper.

It's much harder—and far more important—to help teams **see it early, name it clearly, and act on it together.**

That's what you're doing now. This is your voice. Your lens. Your legacy.

In the final section (4.2.3 – Risk Culture White Paper), you'll have the chance to expand your vision even further—offering a formal, research-informed position on what a sustainable, emotionally intelligent risk culture could look like beyond this project.

4.2.3: Risk Culture White Paper

Crafting a Vision for Sustainable, Emotionally Intelligent Risk Leadership

Overview: Why End with a White Paper?

Throughout this practicum, you've engaged with risk at every level:

- Structural risk (from poor planning or systems gaps)
- Behavioral risk (from silence, avoidance, or misalignment)
- Cultural risk (from suppressed emotion, faulty memory, or false consensus)

Now, you have the opportunity to step back and ask:

“What kind of risk culture do I want to build—or be part of?”

This final optional milestone invites you to write a **Risk Culture White Paper**—a concise, persuasive, systems-level position paper that articulates your personal or professional vision for how individuals, teams, or organizations should treat risk as a **cultural function, not just a technical task**.

Purpose of the Risk Culture White Paper

- Synthesize your most powerful insights about risk behavior, leadership, and systems
- Share those insights in a transferable way—for future teams, employers, or collaborators
- Develop a tangible artifact of your **risk leadership voice**
- Envision how risk literacy, emotional intelligence, and organizational design can intersect
- Take ownership of not just how you manage risk, but **how you define it**

Target Audience

You choose.

This white paper can be written as if addressed to:

- Future SMDC leadership
- Your next project team
- A class of new interns or junior team members
- A cross-functional product team
- A panel of investors or compliance officers
- Yourself, five years from now

Whoever your audience, your tone should be professional, concise, reflective, and action-oriented.

Suggested Structure (Flexible Template)

Title Page

- Title (e.g., “*Beyond Checklists: Designing a Risk Culture That Remembers and Responds*”)
- Author name
- Date
- Optional subtitle

Executive Summary (1–2 paragraphs)

- Introduce the core argument or thesis
- Preview your position and key recommendations
- Frame the urgency: Why does this matter now?

Risk Culture: Definitions and Lenses

- Define what you mean by “risk culture”
- Draw from Chapter 4.1 and your Milestone experiences
- Highlight why technical controls are not enough without behavioral alignment
- Optionally include the SEW model or collaboration examples as framing devices

Three Pillars of Sustainable Risk Culture(Examples below)

You are encouraged to define your own pillars based on what resonated most with you. Here are a few to choose from:

Example pillars of a sustainable risk culture and their focus areas for guiding team behavior, communication, memory, ownership, and inclusion.

Pillar	Focus
Emotional Fluency in Risk	Teams must recognize emotional signals (fear, shame, fatigue) as early data
Visible Communication Rituals	Normalize retros, pre-mortems, and friction forums as default behaviors
Living Risk Memory	Shift from static logs to evolving systems that capture lessons and patterns
Role-Agnostic Ownership	Everyone, not just “risk leads,” should surface and track emerging threats
Equity and Inclusion as Risk Strategy	Highlight how exclusion, silence, and privilege are themselves risk vectors

Each pillar should include:

- A core idea
- A real-world example or case insight
- A specific action or policy recommendation

Call to Action

- What should your audience **start doing**, **stop doing**, and **rethink**?
- What does a risk-aware team need more of—and less of?
- How does this improve outcomes, not just for safety and speed, but for trust and adaptability?

Closing Reflection

- Share your personal evolution as a risk thinker and leader
- Acknowledge the difficulty of changing culture
- Reaffirm why risk awareness is **a human skill, not just a business tool**

Optional Additions

- Visual summary (e.g., triangle model, culture system diagram, value-to-risk map)
- Quotes or moments from your own milestones
- “10 Behaviors of Risk-Aware Teams” checklist
- Email-ready version of your summary for future use
- Sample risk culture playbook excerpts or prompts

Evaluation Criteria (If Submitted for Credit)

Evaluation criteria for assessing submitted work based on insight, argument clarity, systems thinking, actionability, leadership voice, and professional presentation.

Area	Indicators
Depth of Insight	Goes beyond textbook repetition; makes original, experience-based connections
Clarity of Argument	Structure is logical, persuasive, and clearly targeted
Systems Thinking	Identifies upstream causes and downstream effects of weak or strong risk culture
Actionability	Offers specific, relevant recommendations—not just abstract ideals
Voice & Vision	Demonstrates ownership of the material and a leadership perspective
Format & Polish	Well organized, proofread, and professional in tone and appearance

Use Cases After the Course

- [Quick fix](#) Submit as a writing sample for a job in product, healthtech, or strategy
- Adapt into an internal risk onboarding guide at your workplace
- Share with instructors or mentors as a capstone artifact
- Turn into a conference proposal or equity research idea
- Refer back to it as your personal philosophy on uncertainty, systems, and learning

Closing Note: This Is the Voice of the Future

Risk is changing. It's no longer just about compliance and disaster recovery. It's about **how teams behave when they're not sure what to do**.

The Risk Culture White Paper is your chance to shape that behavior—by naming what you've seen, what you've learned, and what you believe should happen next.

This is where you shift from participant to thought leader.

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GLOSSARY

A

After-Action Review (AAR)

A structured team debrief held shortly after a key event or milestone to discuss what went well, what didn't, and what should change next time. Used to build organizational memory and prevent risk recurrence.

Alert Fatigue

A phenomenon where users become desensitized to system-generated alerts due to frequency, irrelevance, or lack of clarity—often leading to ignored or missed critical signals.

B

Blind Spot (in Risk Mapping)

A risk that is recognized by some stakeholders but remains invisible or unacknowledged by others—often due to communication gaps, power dynamics, or cultural silencing.

Business Model Canvas (BMC)

A framework used to understand how a product or service creates, delivers, and captures value. In this course, adapted to model risks across patient experience.

C

Contingency Plan

A structured plan that outlines what to do if a specific risk event occurs. Includes trigger conditions, immediate actions, roles, communication steps, and escalation paths.

Control (Risk Control)

A process, action, or tool implemented to reduce the likelihood or impact of a risk. Can be preventive, detective, or corrective.

Control Mindset

A leadership orientation that views every risk as a potential opportunity to evolve system design, team learning, and long-term resilience.

Co-Risk

A risk shared across multiple stakeholders, roles, or systems—indicating a high-priority area for joint attention.

D

Decision Tree

A visual model used to structure decision points and their consequences. Helps teams map risk tradeoffs, predict outcomes, and evaluate scenarios.

Delphi Method (Modified)

A stakeholder consensus technique used to gather and synthesize expert opinions on risk prioritization, used in Milestone 3.

E

Escalation Path

A predefined sequence of decision-makers or roles who become involved when a risk surpasses the team's ability to resolve it locally.

Emotion (SEW Model)

The internal feeling that follows a sensory trigger in a risk context—such as anxiety, embarrassment, defensiveness, or frustration.

F

False Alignment

A scenario where team members appear to agree, but hold conflicting interpretations or unspoken concerns.

Friction Forum

A psychological safety ritual where team members are explicitly invited to raise uncomfortable questions, concerns, or uncertainties—especially early in project cycles.

G

Gap Analysis (in Risk)

An assessment comparing current risk management practices to desired or required practices. Highlights vulnerabilities, omissions, or design flaws.

H

High-Leverage Control

A risk control that reduces multiple risks or has an outsized effect relative to its cost or complexity.

I

Impact Matrix

A prioritization tool that helps assess the relative impact and likelihood of various risks. Used to rank and select risk themes.

Integrated Risk View

A cross-milestone synthesis of risks, controls, and decision outcomes—used to identify patterns, recurring themes, and structural insights.

L

Living Risk Register

A continuously updated document or tool that tracks emerging risks, current status, and control responses. Differentiates from one-time or static risk logs.

M

Memory Gap (Organizational)

A failure to document, retain, or reuse lessons from past risks—often leading to repeated failures or missed improvement opportunities.

Milestone

A scenario-based module in this practicum that simulates a real-world risk task. Each milestone produces a tool, decision, or framework.

O

Organizational Memory

The collective ability of a team to remember, reuse, and evolve lessons learned from past experiences and risk events.

Opportunity Risk

A risk that, if managed well, could result in an unexpected advantage or positive outcome.

P

Preventive Control

An action taken in advance to reduce the likelihood that a risk will occur.

Portfolio Risk Assessment

An integrated analysis that examines risk across all domains, teams, and milestones in a project.

R

Residual Risk

The risk that remains after all planned controls have been implemented.

Risk Breakdown Structure (RBS)

A hierarchical framework that categorizes and visualizes risk across broad domains and specific triggers.

Risk Culture

The shared behaviors, norms, and expectations that shape how people in an organization talk about, respond to, and learn from risk.

S

SEW Model (Sensation–Emotion–Want)

A human-centered framework for understanding how people internally respond to uncertainty. Helps teams surface early signs of risk and navigate silence, shame, or avoidance.

Stakeholder Convergence Map

A visual or tabular tool showing where stakeholder perspectives align, conflict, or diverge on key risks.

T

TOWS Matrix

A strategic analysis tool (inverted SWOT) used to identify risk responses based on internal strengths/weaknesses and external threats/opportunities.

Trigger Condition

A specific observable event or threshold that activates a contingency plan.

U**Unspoken Want (SEW)**

The hidden desire or impulse that follows an emotional reaction to uncertainty—such as the urge to avoid conflict, rush to finish, or remain silent.

V**Value–Risk Tradeoff**

A strategic decision framework where teams weigh the potential benefits of a path against the risks it introduces or amplifies.

W**Want (SEW Model)**

The action impulse that follows a feeling—what someone internally wants to do or avoid after perceiving a risk trigger.

Weakness–Opportunity Strategy (TOWS)

A planning move where an external opportunity is used to reduce or compensate for an internal weakness that generates risk.

DETAILED LICENSING

Overview

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Instructor Guide

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- Purpose of the course
- Instructor as risk facilitator, not just grader
- Learning goals and mindset shifts

Section 2: Teaching Approach

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- Using the SMDC simulation
- Balancing tools, culture, and reflection
- Options for team-based vs individual work

Section 3: Course Schedule & Milestone Pacing

- Suggested 12-week schedule with optional extensions
- Estimated time per milestone
- Critical path milestones (must-hit)

Section 4: Evaluation & Grading Guidance

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- Rubrics for milestone deliverables
- Assessing reflections and leadership thinking
- Handling team dynamics and conflict

Section 5: Facilitation Tools

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- SEW check-in questions
- How to run milestone reviews and peer feedback
- Integrating retros and AARs

Section 6: Customization Options

- How to adapt milestones for different industries (tech, health, education)
- How to scale up/down for 8-week or 16-week formats
- Optional add-ons: guest speakers, roleplay, presentations

Section 7: Instructor Resources

- Editable templates and worksheets
- Sample submissions or excerpts
- Rubric bank
- Link to student glossary and appendices

Instructor Guide - Section 1: Course Overview and Instructor Role

Course Purpose: Beyond Tools—Teaching Risk as Leadership

CIS 95C: Risk Assessment and Mitigation – A Practicum is not a traditional lecture-based course. It is a **problem-based learning experience** that invites students to think, act, and reflect like risk strategists inside a simulated real-world organization (SMDC – Self-Managed Diabetic Care Inc.).

The course teaches **how to recognize, prioritize, and respond to risk**—not just with tools like matrices or checklists, but with **empathy, systems thinking, and leadership awareness**.

Students work through twelve milestone scenarios—each simulating a high-stakes task faced by a startup team in healthtech. By the end, students create a professional-grade **risk portfolio** that demonstrates technical, strategic, and emotional fluency in risk leadership.

The Role of the Instructor: Facilitator, Coach, and Cultural Guide

You are not just evaluating deliverables. You are guiding students through:

- Ambiguity and emotional complexity
- Tradeoffs and incomplete information
- Communication and collaboration tensions
- Their own mindset evolution as decision-makers

Your key responsibilities:

- Create a safe learning space for risk reflection, discussion, and feedback
- Model real-world thinking and iterative design—not perfection
- Normalize confusion, misalignment, and uncertainty as part of the risk learning process
- Encourage emotional literacy (SEW model), communication practices, and team rituals
- Give feedback not just on correctness—but on clarity, leadership, and growth

This is a leadership lab disguised as a risk management course.

Learning Outcomes and Transformational Goals

While students gain practical experience with tools like the RBS, Impact Matrix, and Decision Tree, the real learning is deeper:

Caption: Course learning outcomes and examples of how students demonstrate risk assessment, control design, communication, integration, and leadership growth.

By end of course, students should be able to...	This looks like...
Identify, structure, and prioritize risk	Building RBS, impact matrices, root cause diagrams
Design and evaluate risk controls	Preventive checklists, decision models, cost tradeoffs
Communicate risk clearly across roles	Stakeholder memos, synthesis maps, escalation protocols
Integrate emotional, social, and cultural signals into risk decisions	Using SEW, collaboration diagnostics, and memory systems
Reflect on their growth as risk-aware leaders	Capstone reflections, recommendations, white papers

What Makes This Course Different

Comparison of traditional risk course approaches with the CIS 95C practicum model, highlighting differences in format, learning focus, deliverables, instructor role, and leadership orientation.

Traditional Risk Course	CIS 95C
Lecture and quiz format	Scenario-based, milestone-driven
Technical tools only	Tools + reflection + behavior + communication
One-time deliverables	Living portfolio of interconnected work
Instructor as evaluator	Instructor as facilitator and culture-builder
Focus on risk as threat	Focus on risk as insight, power, and leadership lens

What Instructors Have at Their Disposal

Throughout this guide and the textbook, you'll find:

- A complete milestone set with instructions, tools, and rubrics
- A glossary and appendix of all tools and frameworks
- Editable templates for RBS, control checklists, decision trees, and more
- Reflection prompts, collaboration rituals, and SEW-based practices
- Optional white paper and presentation activities for deeper integration

You do not need to be a risk expert to teach this course effectively. You only need to:

- Believe that **risk is teachable**
- Model **uncertainty as curiosity**
- Provide **structure, safety, and feedback** for students to explore discomfort productively

Section 2: Teaching Approach

How to Teach a Practicum-Centered, Scenario-Based Risk Course

What Makes This a Practicum

Unlike content-heavy lecture courses, *CIS 95C* is designed as a **learning-by-doing experience**. Students are immersed in a simulation where risk is not just discussed—it is:

- Modeled
- Misunderstood
- Debated
- Managed
- Lived

Each of the **12 milestones** is framed as a real task from inside SMDC (Self-Managed Diabetic Care Inc.), a fictional healthtech startup with real-world dynamics:

- Tight timelines
- Patient-centered consequences
- Cross-functional conflicts
- High emotional and ethical stakes

Students are not just asked to apply tools—they must also **process ambiguity, pressure, tradeoffs, and silence**, just as real teams must do in live projects.

Your Role as a Practicum Instructor

Your central goal is to help students:

- **Experience risk** from multiple perspectives (technical, human, strategic)
- **Reflect** on what they feel and observe—not just what they produce
- **Build fluency** in tools, frameworks, and team dynamics
- **Integrate** learning across time—not milestone by milestone, but system by system

This means you'll act as a:

Instructor roles in the CIS 95C practicum, showing how facilitation, coaching, risk culture design, synthesis, and evaluation support student learning.

Role	What This Looks Like
Facilitator	Guiding conversations about tradeoffs, tensions, and uncertainty
Coach	Supporting student growth in emotional fluency and strategic reasoning
Risk Culture Designer	Modeling what healthy risk communication looks and sounds like
Synthesizer	Helping students see cross-milestone patterns and cultural lessons
Evaluator	Giving feedback on clarity, thoughtfulness, empathy—not just technical accuracy

Pedagogical Foundations

Pedagogical foundations of the CIS 95C practicum and how each principle is embedded through milestone design, simulation, reflection, systems thinking, and emotional intelligence.

Principle	How It's Embedded
Problem-Based Learning (PBL)	Each milestone is structured around a real-world risk challenge with an open-ended solution space
Experiential Learning	Students build, test, and revise tools based on case simulations—not just case readings
Reflection as Assessment	Each milestone includes structured prompts that assess metacognition and insight
Systems Thinking	Later milestones connect earlier ones, showing how risk lives across teams and time
Equity and Emotional Intelligence	SEW Model and collaboration tools help students engage discomfort productively

Weekly Flow (Sample)

Sample weekly course flow showing pre-class preparation, in-class facilitation activities, and post-class submission and reflection work.

Class Format	Example Activities
Pre-Class	Students review milestone memo and begin planning submission
Class Session	Instructor facilitates:
• Scenario unpacking	
• Team or solo work	
• Reflection debrief using SEW	
• Discussion of tradeoffs	
Post-Class	Students finalize submission + reflection; peer review (optional)

Team-Based vs. Individual Formats

This course can be taught either **individually** or in **teams**.

Comparison of individual and team-based course formats, including advantages and instructional considerations for each learning approach.

Format	Pros	Considerations
Individual	Students work at own pace; clear accountability	Instructor must simulate multiple stakeholder voices
Teams (2–4 students)	Simulates real-world project dynamics; enables cross-role synthesis	Requires facilitation of conflict, role assignment, and peer evaluation

Pro tip: Rotate roles (e.g., PM, Risk Lead, Patient Advocate, Technical Owner) to help students experience power shifts and responsibility sharing.

Milestone as Weekly Core

Each week or class cycle is anchored by one milestone:

1. Instructor introduces scenario (via memo)
2. Students plan approach using tools provided
3. Teams collaborate, sketch, and test
4. Instructor facilitates real-time coaching
5. Students submit deliverables + reflection
6. Feedback focuses on process *and* insight

Integrating Tools, Models, and Mindsets

Each milestone is scaffolded with:

- Templates (Appendix A)
- Toolkits (e.g., Impact Matrix, Fishbone, RBS)
- Culture models (SEW, Communication Frames, Memory Systems)

As an instructor, you can:

- Preload templates into Canvas
- Facilitate modeling sessions live
- Use real-time annotation to walk through decision tree logic or stakeholder misalignment
- Pause to ask: “*What SEW signals are showing up in this moment?*”

When Students Get Stuck

Expect moments of:

- Paralysis (not knowing how to start)
- Surface-level answers (defaulting to tools without reflection)
- Misalignment (team members pulling in different directions)
- Confusion (over purpose vs. product)

When this happens:

- Reground in the milestone memo—What is the problem to solve?
- Ask reflective prompts: “What are you assuming? What feels unclear? What are you avoiding?”
- Use the SEW Model to name emotional blocks
- Affirm that **discomfort = progress** in a practicum

Instructor Guide – Section 3: Course Schedule & Milestone Pacing Guide

How to Plan, Pace, and Scaffold CIS 95C Across Different Learning Formats

Recommended Course Structure: 12 Weeks, 12 Milestones

Each milestone in *CIS 95C: Risk Assessment and Mitigation – A Practicum* is designed to represent **1 week of immersive learning**, with built-in flexibility to:

- Compress into 8–10 weeks (with combined modules)
- Extend into 14–16 weeks (with deeper reflection or presentations)
- Adapt to hybrid, asynchronous, or team-based formats

Course Phases and Flow

Four-phase course progression showing the focus, timeline, and milestone sequence of the CIS 95C risk assessment and mitigation practicum.

Phase	Focus	Weeks	Milestones
Phase 1: Risk Foundations	Structuring and understanding risk	1–4	M1–M4
Phase 2: Analysis & Strategy	Diagnosis, strengths, stakeholder mapping	5–8	M5–M8
Phase 3: Decision & Response	Tradeoffs, control selection, contingency	9–11	M9–M11
Phase 4: Capstone Synthesis	Portfolio integration, recommendations, reflection	12	M12 + 4.2.x

Week-by-Week Pacing Overview

Week-by-week pacing guide showing milestone topics, instructional focus areas, and facilitation priorities across the 12-week CIS 95C practicum.

Week	Milestone / Focus	Instructor Notes
Week 1	M1 – Structuring Risk (RBS)	Introduce SMDC, Planning Meeting technique, RBS structure
Week 2	M2 – Prioritizing Risk (Impact Matrix)	Scaffold LxI scoring, identify early blind spots
Week 3	M3 – Validating Perception	Use Delphi scoring, role empathy, cross-functional tensions
Week 4	M4 – Preventive Control Design	Focus on ownership, preventive logic, checklist design
Week 5	M5 – Root Cause Diagnosis	Facilitate 5 Whys and Fishbone thinking
Week 6	M6 – Strategic Framing (TOWS)	Introduce SWOT/TOWS, internal/external synthesis
Week 7	M7 – Patient Risk Mapping	Use adapted BMC and emotional SEW risks
Week 8	M8 – Multi-Stakeholder Synthesis	Build convergence/conflict map, prep for recommendations
Week 9	M9 – Control Selection via Cost	Prioritize based on effort, value, and tradeoffs
Week 10	M10 – Decision Modeling (Tree)	Decision logic, branching outcomes, mitigation reasoning
Week 11	M11 – Contingency Planning	Escalation plans, triggers, and response leadership
Week 12	M12 + Capstone Integration (4.2.1–4.2.3)	Portfolio assembly, final recommendations, optional white paper or presentations

Alternate Schedules

10-Week Fast Track Format

- Combine M1+M2 (Risk Structuring/Scoring)
- Combine M7+M8 (Patient + Stakeholder Integration)
- Use 1 week for combined Capstone and Reflection (M12 + 4.2.1–4.2.3)

8-Week Compressed Format

- Combine two milestones per week
- Focus only on M1–M4, M7, M9, M11, M12 (omit optional or reflection-intensive modules)
- Use reflection prompts as homework to preserve insight

16-Week Extended Format

- Add 1 extra week for:
 - Team formation + risk culture contracts
 - Peer review cycles (milestones 4, 8, or 12)
 - Instructor-facilitated retros
 - Risk presentations or industry feedback

Time-on-Task Recommendations (Per Milestone)

Recommended time allocation for completing each milestone, including preparation, analysis, collaboration, reflection, and total weekly effort.

Task Type	Estimated Time
Reading Memo + Setup	30–45 minutes
Tool Design or Analysis	90–120 minutes
Collaboration (Live or Async)	60–90 minutes
Reflection + Debrief	30–45 minutes
Total	~4–5 hours/week

Adjust up or down depending on team size, course level, or format.

Key Milestones That Anchor Learning

If compressed, prioritize:

- **M1** – Risk Structuring
- **M2** – Prioritization
- **M4** – Control Design
- **M8** – Stakeholder Synthesis
- **M9** – Resource-Based Prioritization
- **M12** – Capstone Reflection

Here is the full draft of:

Section 4: Evaluation & Grading Guidance

How to Assess Risk Thinking, Tools, Leadership, and Reflection

Grading Philosophy

The evaluation model for *CIS 95C* reflects the course's **practicum nature**:

- Students are not assessed on right/wrong answers
- They are assessed on their ability to **apply tools, make decisions, justify tradeoffs, and reflect meaningfully**

This course integrates:

- Technical accuracy (use of tools, logic, prioritization)
- Strategic clarity (framing, synthesis, stakeholder sense-making)
- Reflective depth (metacognition, emotional fluency, leadership voice)
- Process awareness (collaboration, follow-through, revision)

You are encouraged to grade **for growth, not perfection**—rewarding learning and leadership evolution.

Suggested Grade Breakdown (Sample)

Sample grade distribution showing recommended weighting of milestone deliverables, reflections, capstone work, final recommendations, and participation components.

Category	% Weight	Notes
Milestone Deliverables (M1–M11)	55%	Weighted evenly or scaled (e.g., M9–M11 heavier)
Reflections (embedded in each milestone)	15%	Short but critical; gauge maturity of thinking
Capstone Portfolio (M12 + 4.2.1)	20%	Synthesis across milestones and culture/leadership insights
Final Recommendations or White Paper	5–10%	Optional high-impact artifact
Participation & Peer Collaboration	0–10%	Only if team-based; evaluate based on engagement and contribution

Milestone Evaluation Rubric (General Template)

General milestone evaluation rubric describing performance expectations across clarity, strategic thinking, tool application, risk culture awareness, and reflection quality.

Criteria	Exemplary (4)	Proficient (3)	Developing (2)	Needs Support (1)
Clarity & Structure	Tool is complete, well-labeled, easy to interpret	Tool is mostly complete, some formatting issues	Tool is unclear or incomplete	Tool is missing or confusing
Strategic Thinking	Risk reasoning and prioritization are logical and nuanced	Reasoning is mostly sound with minor gaps	Prioritization is unclear or shallow	Shows limited understanding of risk structure
Application of Tools	Tool used correctly with customization	Tool applied with minor errors	Tool used generically or copied	Tool used incorrectly or not used
Risk Culture Awareness	Shows understanding of communication, SEW, or memory signals	Attempts to include team or emotional dynamics	Focused only on technical aspects	Ignores behavioral/cultural factors
Reflection Quality	Deep, specific, growth-oriented insights	Clear reflections on process	Generic summary with little depth	Reflection missing or surface-level

Capstone Portfolio Rubric (M12 + 4.2.1)

Capstone portfolio evaluation rubric showing weighted criteria for completeness, integration, cultural intelligence, presentation quality, and leadership reflection.

Category	Weight	Description
Portfolio Completeness	20%	All milestone tools are included, revised, and labeled
Integration / Synthesis	30%	Connects risks across time, themes, and roles
Cultural Intelligence	20%	Shows awareness of SEW, collaboration, or memory issues
Clarity & Presentation	20%	Portfolio is organized, professional, ready to present
Leadership Reflection	10%	Final essay shows maturity, ownership, and risk voice

Reflection Grading Tips

Reflections are not graded for grammar or polish. They are graded for:

- **Depth:** Did the student go beyond obvious answers?
- **Ownership:** Do they name their own blind spots, growth, and reactions?
- **Insight:** Did they learn something transferable about risk, leadership, or collaboration?

Use short feedback prompts like:

“This is a strong insight—could you connect it to another milestone?”
 “Interesting emotion pattern—what decision did it shape?”
 “How would you teach this to a new team?”

Grading Team-Based Projects

If using groups:

- Require a **collaboration log** (who did what, challenges, lessons)
- Use **360 peer evaluations** for milestones 4, 8, and 12
- Include team roles as part of rubric: Did the Risk Lead guide? Did the Communicator facilitate?

Encourage rotating roles to avoid invisible labor or silos.

Optional Peer Feedback

You may add peer review for:

- RBS (Milestone 1)
- Stakeholder map (M3/M8)
- Final recommendations (M12/4.2.2)

Students can give feedback using structured prompts:

- “What’s clear?”
- “What’s missing?”
- “What tradeoff surprised you?”
- “What would you do differently with this model?”

Instructor Guide – Section 5: Facilitation Tools and Prompts

Leading Reflection, Surfacing Risk, and Supporting Student Insight

Purpose of This Section

This section equips instructors with **practical techniques** to:

- Facilitate class sessions and group work
- Support emotional safety and risk fluency
- Prompt metacognition and team-based learning
- Run structured check-ins, retrospectives, and feedback sessions

These tools are especially helpful for:

- Group-based versions of CIS 95C
- Live or synchronous instruction
- Weekly milestone coaching
- Capstone debrief sessions

Tool 1: SEW-Based Check-In Prompts

Use to build emotional awareness of risk perception (Sensation–Emotion–Want)

When to Use:

- Start of class or workshop
- End-of-milestone debrief
- During difficult decisions or feedback

Prompts:

1. “What’s something that made you pause or feel uneasy during this milestone?” (*Sensation*)
2. “What emotion came up for you while making your decision?” (*Emotion*)
3. “What did you want to do in that moment—act, avoid, defer?” (*Want*)
4. “What was hardest to say out loud during this sprint?”
5. “What question are we not asking—but should be?”

Facilitator Tip: Use a timer or allow 1–2 minutes of quiet journaling before sharing.

Tool 2: Friction Forums

Mini-ritual to normalize productive disagreement and early escalation

How it Works:

- Hold a 15–20 minute space where anyone can bring up:
 - A conflict or disagreement
 - A discomfort that hasn’t been addressed
 - A risk they feel is being downplayed or ignored

Facilitation Prompts:

- “What felt off this week, even if it wasn’t ‘urgent’?”
- “What feedback was hard to give—or hard to receive?”
- “What are we pretending not to see?”

Group Norms:

- No immediate fixing
- Listen to understand
- Notes are taken, patterns tracked

Pro Tip: Rotate the “Friction Host” role weekly so all voices are normalized.

Tool 3: Weekly Micro-Retrospectives

Short, consistent ritual to reinforce team learning and risk visibility

Use this format at the end of each milestone:

End-of-milestone reflection prompts and the insights they are designed to reveal about learning, risk awareness, and continuous improvement.

Prompt	What It Reveals
“What worked?”	Strengths and repeatable practices
“What surprised us?”	Blind spots, new signals
“What risk did we almost miss?”	Risk surfacing
“What do we want to do differently next time?”	Learning loop

Bonus: Keep a “Retro Archive” so teams can track memory and evolution.

Tool 4: Decision Debrief Prompts

Use when students complete decision modeling, tradeoff selection, or control prioritization

Ask:

- “What values shaped this decision?”
- “What did we choose to optimize—and what did we accept as a tradeoff?”
- “What made this decision difficult emotionally or interpersonally?”
- “How would another stakeholder frame this differently?”

Encourage students to reflect not just on the model—but the **conversation** behind it.

Tool 5: Reflection Prompts (Anytime)

These work well in discussion forums, 1:1 journals, or peer response sessions

General Prompts:

- “How did your understanding of risk change in this milestone?”
- “What was your strongest moment of insight—and what triggered it?”
- “What question stayed with you after this activity?”
- “What did you learn about decision-making in uncertainty?”
- “How did your thinking evolve from Milestone 1 to now?”

Tool 6: Peer Feedback Frames

Supports trust-building and cross-team learning

Use structured peer review cycles in M4, M8, or M12. Provide a feedback scaffold:

Peer review feedback prompts and their purposes for supporting constructive critique, reflection, inquiry, and systems thinking.

Prompt	Purpose
“One thing that’s clear in your model is...”	Affirm strengths

Prompt	Purpose
"One risk or tradeoff I might reframe is..."	Invite iteration
"Here's a question your model raises for me..."	Encourage inquiry
"This reminds me of an issue we faced in..."	Encourage system thinking

Use live, async, or video peer review to accommodate different learning modes.

Instructor Guide – Section 6: Customization Options

Adapting CIS 95C Across Disciplines, Delivery Formats, and Program Contexts

Purpose of This Section

CIS 95C: Risk Assessment and Mitigation – A Practicum is designed to be modular, cross-disciplinary, and adaptable. This section gives instructors practical options for tailoring the course to different learning environments, timeframes, student profiles, and industries—without sacrificing rigor or cohesion.

Delivery Format Customizations

Recommendations for adapting the practicum to online, synchronous, hybrid, and self-paced learning environments.

Format	How to Adapt
Online Asynchronous	Embed milestone instructions into LMS modules with clear submission folders. Use video memos, asynchronous discussion prompts, and weekly journaling instead of live workshops.
Synchronous (Zoom or In-Person)	Use class time for milestone unpacking, collaborative tool-building, SEW check-ins, and real-time coaching. Assign reflections as homework.
Hybrid / HyFlex	Use synchronous time for milestone discussion and planning. Milestone execution, tools, and reflections can be completed asynchronously.
Self-Paced / Independent Study	Provide a suggested milestone schedule with checkpoints. Encourage students to build a solo risk portfolio and submit a reflection log weekly.

Disciplinary Adaptations

Computer Science / Software Development

- Emphasize technical risks: system failure, vendor dependency, algorithm bias
- Expand on root cause analysis and decision tree logic
- Use GitHub or version control as a case study for organizational memory

Health Sciences / Public Health

- Focus on patient harm, compliance (HIPAA, FDA), and risk communication
- Emphasize empathy, SEW, and stakeholder alignment (patient–clinician–system)
- Tie in healthcare-specific decision-making challenges

Business / Product Management

- Emphasize risk tradeoffs, ROI, value–cost prioritization

- Use business model canvas (BMC) and TOWS strategy planning
- Frame stakeholder maps as part of product-market fit and innovation risk

Psychology / Organizational Behavior

- Explore emotional and behavioral dimensions of risk
- Focus on SEW model, silence, groupthink, and risk culture building
- Use reflection and white paper assignments as applied leadership projects

Timeframe and Course Length Customizations

Strategies for adapting the CIS 95C practicum to different course lengths, including accelerated, standard, and extended-term formats.

Course Length	Adaptation Strategy
8 weeks	Combine key milestones (e.g., M1+2, M7+8), use lighter reflection cycles
10 weeks	Drop optional milestones (e.g., M6 or M10), and scaffold M12 as capstone week
16 weeks	Add peer review weeks, guest speakers, mini-case simulations, or student-led retrospectives
5-week summer bootcamp	Focus on M1–M4 + M9–M12. Replace white paper with a live debrief or final presentation.

Use Case Variations

Certificate or Career-Readiness Program

- Emphasize portfolio production, decision justification, and stakeholder translation
- Include mock interviews, presentation weeks, or resume framing
- Tie Milestone 12 to career goals: “How does this risk story position me professionally?”

Corporate / Executive Training

- Replace SMDC case with company-specific case
- Use live roleplay for milestone scenarios
- Debrief each milestone with leadership coaching questions
- Focus on cultural transformation via SEW and memory frameworks

Team-Based / Project-Based Capstone

- Assign long-term teams with rotating risk leadership roles
- Use milestones as modules in an applied capstone project
- Treat Milestone 12 as a group retrospective + presentation

Optional Enhancements

Optional course enhancements that extend the practicum through guest expertise, real-world data, stakeholder feedback, simulations, and alternative case contexts.

Enhancement	Description
Guest Speaker	Bring in a PM, clinician, or compliance leader to share a “risk failure” story
Real Data Integration	Use anonymized real-world data (e.g., alert logs, pilot feedback, QA reports)
Capstone Panel	Invite feedback from stakeholders (patients, clinicians, product leads) on student recommendations
Mini-Simulations	Add micro-scenarios (e.g., “You get a call at 5pm—this risk just activated. What do you do?”)

Enhancement	Description
Case Swap	Replace SMDC with another complex system (e.g., wildfire response, transportation, election systems)

Instructor Guide – Section 7: Instructor Resources

A Ready-to-Use Toolkit for Teaching, Evaluating, and Supporting CIS 95C

Overview

This section lists all the essential tools, templates, and resources available to help instructors:

- Teach and adapt each milestone
- Evaluate student work fairly and consistently
- Encourage team-based collaboration and reflection
- Save time with ready-made materials

All items can be downloaded, copied, or linked from the course shell, OER repository, or appendix.

Included Resources (by Type)

A. Editable Templates

All included in Appendix A (available in Google Docs/Sheets format or Canvas modules)

- Risk Breakdown Structure (RBS) Template
- Risk Statement and Impact Matrix
- Stakeholder Risk Scoring Sheet
- Preventive Control Checklist
- Fishbone and 5 Whys Worksheets
- TOWS Matrix + Strategic Planning Template
- Patient-Facing Business Model Canvas
- Decision Tree Template
- Contingency Planning Sheet
- Integrated Risk Review Table
- Capstone Recommendation Slide Template
- Risk Culture White Paper Outline

B. Rubrics and Grading Tools

- Milestone Rubric (general-use, adaptable for all modules)
- Capstone Portfolio Rubric (M12 + 4.2.1)
- Reflection Rubric (focused on metacognitive and emotional insight)
- Optional Peer Feedback Rubric (for M4, M8, M12)
- Team Participation Tracker (if running collaborative format)

These are designed to allow:

- 4-point or 5-point grading
- Written comments per criterion
- Optional letter-grade equivalents or pass/no-pass models

C. Facilitation & Coaching Prompts

Available as a “Facilitation Toolkit” PDF or embedded in Canvas:

- SEW check-in and debrief questions
- Weekly micro-retrospective script
- Friction Forum ritual instructions
- Decision-making reflection guide
- Peer review feedback scaffolds
- Team formation & role rotation guide

Can be used in class, office hours, asynchronous forums, or as part of weekly announcements.

D. Slide Decks (Optional)

Editable Google Slides decks available for:

- Course Orientation (Week 1)
- Risk Tool Demos (RBS, Impact Matrix, TOWS, Decision Tree)
- Capstone Prep (M12 + 4.2.1)
- Instructor-led Scenario Introductions (Memos for M1, M4, M7)

Each slide deck is modular and can be adapted or embedded into your LMS.

E. Sample Submissions and Exemplars

Optional instructor-only samples of:

- RBS map
- Risk impact matrix
- Stakeholder synthesis map
- Preventive checklist
- Final portfolio excerpt
- Reflection examples (strong, mid-level, and surface-level)

These can be used to calibrate grading, coach students, or guide peer review.

F. Additional Teaching Resources

Supplementary teaching resources available to support course delivery, student success, and instructor implementation of the CIS 95C practicum.

Resource	Description
Glossary of Terms	Includes 50+ terms from the course, with definitions and contextual examples
Appendix A – Templates	All worksheets used in milestones, including blank and sample-filled versions
FAQ Sheet for Students	Common questions about teamwork, deadlines, SEW, grading
Book Context Overview (Instructor Edition)	Summary of SMDC case, curriculum philosophy, and integration strategies
Printable Submission Checklist	Covers formatting, naming conventions, file types

G. OER Licensing and Access

All materials are Creative Commons licensed (CC BY 4.0) and can be:

- Reused in Canvas, LibreTexts, Pressbooks, or your own LMS
- Modified to suit course outcomes or industry focus
- Embedded into CTE or transfer pathways (e.g., Business, Health, Product Design)

A full downloadable teaching pack is available upon request.

Final Tip: Teaching as Risk Modeling

You're not just assigning tasks. You're modeling:

- How to notice risk early
- How to name discomfort clearly
- How to design with uncertainty in mind
- How to lead without control—but with clarity, curiosity, and care

Sample Templates

Appendix A.1 – Risk Breakdown Structure (RBS) Template

Use in Milestone 1: Structuring Risk

This template helps teams create a 3-tiered Risk Breakdown Structure by organizing risks into categories and subcategories, moving from general domains to specific examples.

Structure:

Three-level Risk Breakdown Structure (RBS) hierarchy showing how broad risk domains are organized into categories and specific risk events.

Level	Purpose	Example
Level 1	Broad Risk Domain	Technical Risk
Level 2	Subdomain / Category	Device Integration
Level 3	Specific Risk	Bluetooth sync fails with certain glucose monitors

Blank RBS Table:

Blank Risk Breakdown Structure (RBS) template for organizing project risks into domains, categories, and specific risk examples.

Level 1 – Risk Domain	Level 2 – Category	Level 3 – Specific Risk Examples

Instructions:

1. Brainstorm risks from planning inputs (scope, budget, schedule, etc.)
2. Group them by domain (e.g., Technical, Human, Clinical, Regulatory, UX)
3. Drill down to specific, nameable risks
4. Ensure each branch has at least 2–3 entries at Level 3

Appendix A.2 – Planning Meeting Input Checklist

Use in Milestone 1: Facilitating a Risk Planning Session

This checklist ensures all foundational elements are reviewed before risk structuring begins.

Planning Inputs:

Planning input checklist and guiding questions for reviewing scope, schedule, cost, communication, environmental factors, and organizational assets before risk identification begins.

Input Type	Guiding Questions	Notes
Scope	What's in vs. out? What's vague or evolving?	
Schedule	What is the pilot deadline? What dependencies exist?	
Cost	What's funded? What's forecasted? Are resource assumptions stable?	
Communication	What communication channels are formal/informal? Are there silos?	
Enterprise Environmental Factors (EEFs)	What external factors (laws, norms, vendors) shape risk?	
Organizational Process Assets (OPAs)	What templates, norms, or past habits influence this team's behavior?	

Appendix A.3 – Risk Statement Template

Use in Milestone 2: Prioritizing and Categorizing Risk

This template helps teams write clear, actionable, and non-ambiguous risk statements that can be tracked, scored, and discussed effectively.

Format:

Each risk should be written using this structured sentence:

“There is a risk that [uncertain event] may occur, which would lead to [impact], affecting [project objective(s)].”

Example Risk Statements:

- “There is a risk that patient alert thresholds will be misconfigured, which would lead to inappropriate warnings, affecting user trust and clinical safety.”
- “There is a risk that API vendor changes could break real-time sync, impacting product stability and delaying launch.”

Risk Statement Table:

Risk statement register template for documenting identified risks, their sources, ownership, and supporting notes.

Risk ID	Statement	Source	Owner	Notes
R-001				
R-002				
R-003				

Appendix A.4 – Risk Impact Matrix Template

Use in Milestone 2: Ranking Risk by Impact and Likelihood

The impact matrix helps prioritize risks by scoring them along two dimensions:

- **Likelihood (1–5):** How likely is this to occur?
- **Impact (1–5):** How severe would the consequences be?

Matrix Grid:

Blank 5×5 risk impact matrix template for plotting risks by likelihood and impact to support prioritization and response planning.

Likelihood	Impact: 1 (Low)	2	3	4	5 (High)
Likelihood: 5 (Very Likely)					
4					
3					
2					
1 (Rare)					

Each risk is plotted as a coordinate point (e.g., R-004 = Likelihood 4, Impact 5)

Scoring Table:

Risk scoring worksheet for recording likelihood, impact, combined risk scores, and priority rankings for identified risks.

Risk ID	Description	Likelihood (1–5)	Impact (1–5)	Combined Score (L×I)	Priority Rank
R-001					
R-002					
R-003					

Appendix A.5 – Stakeholder Risk Scoring Sheet

Use in Milestone 3: Validating Risk Perception Across Roles

This sheet allows teams to gather and compare how different stakeholders rank the **importance** of specific risks based on their expertise or role.

Instructions:

1. Distribute risk statements to 3–5 stakeholders (or personas).
2. Each scores risks on a 1–5 scale for **importance or concern**.
3. Collect scores and analyze patterns of agreement or disagreement.

Stakeholder Input Table:

Stakeholder input table for comparing risk perceptions across patient, clinician, engineering, and product perspectives to identify consensus and disagreement.

Risk ID	Risk Statement	Patient Score (1–5)	Clinician Score (1–5)	Engineer Score (1–5)	Product Score (1–5)	Avg / Notes
R-001						
R-002						
R-003						

Optional Analysis Prompts:

- Where did stakeholder views differ most sharply?
 - Are there “blind spots” where one group scored a risk low and others scored it high?
 - What does this suggest about stakeholder alignment and risk ownership?
-

Appendix A.6 – Preventive Control Checklist

Use in Milestone 4: Designing Practical Control Strategies

This template helps teams turn risk concerns into **preventive actions** with clear ownership, timing, and review criteria.

Control Design Table:

Preventive control design template for documenting risk responses, ownership, implementation timing, and measures of control effectiveness.

Control ID	Risk Addressed	Preventive Control Action	Owner	Timing / Frequency	How Will We Know It's Working?
C-001					
C-002					
C-003					

Control Examples:

- “Create clinician review sign-off for all alert language before pilot”
- “Run weekly sync test with test data to detect device API drift”
- “Add onboarding tooltip to clarify ‘out of range’ thresholds for new users”

Controls can also be annotated with:

- Priority level (P1-P3)
 - Preventive vs. Detective vs. Corrective
-

Appendix A.7 – Root Cause (Fishbone) Diagram Template

Use in Milestone 5: Diagnosing Underlying Risk Causes

This visual tool helps teams uncover the **root causes** behind a recurring or high-impact risk by grouping contributing factors into categories.

Purpose:

Move beyond the surface-level issue (“Alert failed”) to explore system-level causes (“Lack of QA process,” “Confusing design handoff,” “Vendor delays”).

Fishbone Structure (Cause Categories):

- People
- Process
- Technology

- Environment
- Communication
- Tools / Vendors

Sample Setup (Diagram):

Effect (The Risk) → [Alert fatigue during pilot]

Branches →

- ↳ People: unclear roles
- ↳ Process: skipped usability test
- ↳ Technology: alert logic hardcoded
- ↳ Environment: rushed deadline
- ↳ Tools: EHR data delay

Blank Table Version:

Blank root cause analysis worksheet for organizing contributing factors across people, process, technology, environment, communication, and vendor-related categories.

Category	Contributing Factors
People	
Process	
Technology	
Environment	
Communication	
Vendors / Tools	

Appendix A.8 – TOWS Matrix Worksheet

Use in Milestone 6: Framing Strategic Risk Moves

This matrix inverts SWOT into **TOWS** to generate **strategy options** that reduce risk using strengths and opportunities.

Definitions:

TOWS matrix quadrants and their strategic purposes for aligning organizational strengths, weaknesses, opportunities, and threats in risk-informed decision making.

TOWS Quadrant	Description
S-O (Strength–Opportunity)	Use strengths to leverage opportunities and reduce risk
S-T (Strength–Threat)	Use strengths to defend against threats
W-O (Weakness–Opportunity)	Use opportunities to overcome internal weaknesses
W-T (Weakness–Threat)	Minimize weaknesses to avoid external threats

Worksheet Template:

TOWS strategy worksheet template for developing risk responses by linking strengths, weaknesses, opportunities, and threats to specific strategic actions.

TOWS Strategy Type	Strategy Ideas	What Risk(s) Does It Address?
S-O		
S-T		
W-O		
W-T		

Example Entry:

Example TOWS strategy entry illustrating how organizational strengths can be leveraged to mitigate a specific project risk.

Type	Strategy Idea	Risk Addressed
S-T	Use our clinical advisor team to validate alert safety before release	Alert misinterpretation by patients

Appendix A.9 – Patient-Facing Business Model Canvas (Risk-Adapted)

Use in Milestone 7: Mapping Risks from the Patient Perspective

This adapted version of the Business Model Canvas helps teams surface risks embedded in **how patients experience the product**, not just how it's built.

Each segment prompts teams to think about:

- How the product supports (or fails) patient goals
- Where risk might emerge due to assumptions, gaps, or unmet needs
- What emotional, behavioral, or access-based risks are involved

Canvas Segments + Risk Prompts:

Patient-centered business model canvas segments with guiding questions and associated risk prompts for identifying patient experience, access, trust, and engagement risks.

Canvas Segment	Patient-Facing Questions	Risk Prompt
Customer Segments	What types of patients will use this? Who is excluded?	Exclusion due to tech, language, or health literacy
Value Proposition	What promises are we making to the patient?	Confusion or disappointment if expectations aren't met
Channels	How do patients access the tool?	Device or digital access barriers
Customer Relationships	What tone or persona do we convey?	Feeling judged or unsupported
Revenue	Who pays, and what do patients know about it?	Distrust if data use isn't transparent
Key Activities (Patient)	What must the patient do to benefit?	Data fatigue or disengagement from complexity
Key Resources (Patient)	What knowledge, tools, or support does a patient need?	Risk of dropout due to insufficient onboarding

Canvas Segment	Patient-Facing Questions	Risk Prompt
Key Partners	Who else supports the patient (clinicians, caregivers)?	Breakdown in shared care plans
Cost (to Patient)	What time, energy, or trust must the patient spend?	Emotional burden outweighs perceived value

You may use a visual canvas or complete this table with 1-2 risks per section.

Appendix A.10 – Decision Tree Template

Use in Milestone 10: Structuring and Evaluating Risk Tradeoffs

This decision modeling tool helps teams visualize:

- A central decision
- Possible actions
- Consequences or follow-ups
- Costs, likelihoods, or strategic considerations

Components of the Decision Tree:

1. **Decision Node:** What are we choosing between?
2. **Branches:** What are the possible actions/options?
3. **Chance Nodes:** What could happen next?
4. **Outcome Nodes:** What is the final result or risk?

Example (Narrative Style):

Decision: Redesign alert or suppress alert volume?

- **Option A: Redesign Alert**
 - Outcome 1: Improved clarity and trust (80%)
 - Outcome 2: Delay to pilot launch (20%)
- **Option B: Suppress Alert Volume**
 - Outcome 1: Patient safety risk (30%)
 - Outcome 2: No change noticed (70%)

Blank Table Format:

Blank decision tree worksheet for comparing decision options, possible outcomes, likelihood estimates, and potential impacts.

Decision	(Likelihood %, Impact)
Option A	
→ Outcome 1	(Likelihood %, Impact)
→ Outcome 2	
Option B	
→ Outcome 1	
→ Outcome 2	

You may also draw this using a branching tree format, software diagramming tools, or slides.

Appendix A.11 – Contingency Planning Sheet

Use in Milestone 11: Planning for Risk Activation

This sheet helps teams define what to do when a specific risk **activates**—including triggers, roles, immediate actions, and escalation paths.

For Each Risk, Capture:

Contingency planning template for documenting risk scenarios, response triggers, ownership, communication actions, recovery steps, and escalation criteria.

Field	Description
Risk Scenario	A clear description of the risk (e.g., “API sync failure on new device”)
Trigger Condition	What event will signal that this risk has occurred?
Immediate Response	What happens first? Who is notified? What is paused or contained?
Primary Owner	Who is responsible for leading the response?
Support Roles	Who else must be involved (e.g., clinical, comms, tech)?
Communication Plan	Who needs to be informed (internally or externally)? How quickly?
Recovery Plan	What will restore stability, functionality, or trust?
Escalation Threshold	At what point does this become a Tier 2 or Tier 3 issue?

Sample Entry:

Example contingency response entry showing a risk event, activation trigger, immediate response actions, ownership, and escalation threshold.

Risk	Trigger	Immediate Response	Owner	Escalation
Consent flow leads to patient confusion	Drop in form completion rate > 30% in 48 hrs	Pause campaign, notify PM & legal	Product Manager	Tier 2 if not resolved in 3 days

Appendix A.12 – Integrated Risk Review Table

Use in Milestone 12 & Capstone (4.2.1): Synthesizing Risk Across Milestones

This table is designed to help students or teams track **risk evolution, recurrence, and insights** across the full SMDC case.

It helps surface:

- Where a risk originated
- How it was addressed
- Whether it reappeared
- What cultural or process issues made it worse—or better

Table Template:

Integrated risk review table for tracking how risks, decisions, outcomes, and cultural factors evolve across milestones and over time.

Milestone	Key Risk(s)	Control or Decision	What Worked	What Resurfaced Later	Cultural Factors (SEW, Collaboration, Memory)
M2 – Risk Impact Matrix	Patient alert misinterpretation	Ranked as low priority	Prioritized others	Became major issue in M7	Early silence, empathy gap
M5 – Root Cause	Repeated data sync issues	Control added	Bug resolved	Similar issue in M9	No team-wide debrief, info silos
M8 – Stakeholder Conflict	Misaligned clinician vs. dev priorities	Conflict mapping	Highlighted key tensions	Delayed resolution	Roles weren't given equal decision power

Appendix A.13 – Final Recommendation Slides Template

Use in Capstone Presentation (4.2.2)

This template provides a slide-by-slide guide for presenting your final risk recommendations to instructors, stakeholders, or peers. It's designed for clarity, brevity, and synthesis across milestones.

Suggested Slide Outline:

Suggested presentation outline for communicating portfolio findings, risk priorities, stakeholder insights, cultural recommendations, and future actions.

Slide	Title	Content
Slide 1	Executive Summary	Brief overview of key findings, priority risks, and high-level takeaways
Slide 2	Top 3 Risk Areas	Describe the most urgent or impactful risks that remain
Slide 3	Control Insights	What controls worked? What failed? What surprised you?
Slide 4	Stakeholder Alignment	Where were the biggest conflicts or blind spots across roles?
Slide 5	Cultural Recommendations	Based on SEW, memory, collaboration—what norms or systems must evolve?
Slide 6	Action Plan	Your proposed next steps: policies, rituals, systems, roles
Slide 7	Call to Action / Closing	One statement that captures your risk philosophy or what future teams must remember

Tips:

- Use visuals sparingly—emphasis should be on message clarity
- Practice a 5–7 minute delivery if used in class
- Consider sharing in PDF format for archival

Appendix A.14 – Risk Culture White Paper Outline

Use in Optional Extension (4.2.3)

This scaffold supports students in drafting a professional, systems-level reflection on risk culture. It draws on course themes from

Chapters 4.1–4.2 and encourages original thinking.

Structure:

Suggested white paper structure for presenting a risk culture framework, including key pillars, recommendations, and leadership reflections.

Section	Prompt
Title Page	Choose a compelling, precise title. Include author, date, subtitle (optional).
Executive Summary	1–2 paragraphs summarizing your position and previewing key recommendations
Definition of Risk Culture	Define the term. Frame it in your own words. Cite course models or moments.
Pillar 1 – Emotional Fluency (SEW)	How should teams become better at naming and responding to discomfort and uncertainty?
Pillar 2 – Communication Systems	What rituals, formats, or expectations should change? What does risk-safe collaboration look like?
Pillar 3 – Organizational Memory	How should teams capture lessons, document failure, and reduce recurrence?
Call to Action	What should your audience do differently now? What mindset should they adopt?
Closing Reflection	How has your view of risk leadership evolved? What do you carry forward from this experience?