

Learning Journal 2

Student Name: Alay Parikh

Course: Software Project Management (SOEN 6841)

Journal URL: <https://github.com/parikhalay/Software-Project-Management>

Dates Range of activities: 23rd September 2024 to 4th October 2024

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Key Concepts Learned:

I studied key aspects of Risk Management, including Risk Categories, Risk Assessment, Risk Mitigation techniques, and Risk Reduction Leverage (RRL). We explored various risk categories such as technology risks (e.g., internet shutdowns affecting deadlines), organizational risks (e.g., budget cuts affecting team productivity), people risks (e.g., key team members leaving), requirements risks (e.g., client changes causing budget issues), and estimation risks (e.g., underestimating budgets).

To reduce risks, we discussed practices like avoiding gold plating by setting realistic deadlines and not over-perfecting the product. In Risk Assessment, we focused on identifying potential risks early, such as whether a team is ready for a new technology. We also learned that quantitative risk analysis is more effective than qualitative methods because it provides measurable insights into risk likelihood and impact, helping teams make better decisions.

I studied Configuration Management (CM) and Project Planning. In CM, I learned how it helps keep software projects stable by managing changes and tracking versions, which prevents delays and errors. I also explored its four main functions: identification (knowing which version I'm using), change control (deciding whether to approve changes), status accounting (keeping records of changes), and auditing (checking if the system meets requirements).

In Project Planning, I reviewed scheduling methods like top-down and bottom-up, which I've used in my work. I learned how Work Breakdown Structure (WBS) simplifies projects by breaking them into smaller tasks and helps with resource allocation. I also realized the importance of adding buffers for potential delays and how Gantt and PERT charts help visualize project timelines and task dependencies.

Applications in Real time projects:

This week's insights on risk management and project planning offer valuable guidance for real-world projects. In a software development project like an e-commerce platform, risks such as technology obsolescence can be identified early. By choosing a stable tech stack, monitoring trends, and creating contingency plans, risks can be managed effectively.

For a mobile banking app project, effective planning using Work Breakdown Structure helps break tasks into manageable parts, improving resource allocation and time estimation. A strong

configuration management system ensures the team tracks changes, works on the latest code, and handles task complexity. These practices enhance collaboration, reduce risks, and improve project success.

Peer Interactions:

I engaged in a peer interaction on the topic of risk management, where we discussed various real-world applications, including risks like technology obsolescence in software development projects. We exchanged ideas on identifying, assessing, and mitigating risks, with a focus on strategies like technology stack selection, contingency planning, and stakeholder collaboration. This exchange helped deepen my understanding of risk management practices and their practical implications in project success.

I attended quizzes that refreshed my understanding of last week's concepts. We met with our TA, received valuable feedback on Deliverable 1, and made necessary revisions after team discussions. For the project pitch, we collaborated effectively, using illustrations to enhance our presentation. The teamwork was excellent, and we confidently delivered a successful pitch to the audience.

Challenges Faced:

I faced challenges in learning about risk management topics. Understanding the complexities of risk categories, assessment methods, and the differences between quantitative and qualitative risk analysis required extra effort. Concepts like calculating risk exposure and determining risk reduction leverage were particularly tricky due to the technical calculations involved. However, with additional study and practical examples, I gradually grasped these important concepts.

While working on project initiation and market analysis, I encountered several difficulties. Limited access to up-to-date, relevant information, especially in niche areas, was a major issue. I also faced conflicting data from different sources, making it hard to determine which information was accurate.

Dealing with invalid or low-quality sources was another challenge, as filtering them out took a lot of time. Gathering accurate data statistics to support the market analysis was crucial for building a solid foundation for the project and proved to be one of the toughest aspects of the process.

Fortunately, through thorough research and strong team collaboration, we tackled these challenges effectively. We shared tasks, cross-verified data, and worked together to find credible information, which allowed us to successfully complete the market analysis with reliable data.

Personal Development Activities:

To improve my understanding of risk management, I focused on real-world case studies of software development projects that faced significant risks, like technology becoming outdated and going over budget. I analyzed how these projects identified, assessed, and dealt with their risks. I also practiced calculating risk exposure and tested different risk response strategies in hypothetical

scenarios. This hands-on approach helped reinforce my learning and was beneficial for our team project, allowing me to better manage potential risks. Overcoming the challenge of applying theory to real situations required a step-by-step approach, but it has boosted my confidence in handling complex project risks.

Goals for the Next Week:

Next week, I have set clear goals to continue learning about risk management and configuration management. I plan to read the next chapters, work closely with my team on project feasibility and analysis, and contribute to improving our project strategy. Additionally, I want to prepare for the mid-semester exams by organizing my study time effectively. Looking ahead, I aim to master advanced project management techniques, ensuring I can confidently apply these skills to larger projects in the future.