

Learning Journal Template

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Course: Software Project Management (SOEN 6841)

Journal URL: <https://github.com/AmishNavadia/SOEN-6841-Amish-Navadia>

Dates Range of activities: 26th Jan 2025 to 6 Feb 2025

Date of the journal: 9th Feb 2025

Key Concepts Learned:

I explored key aspects of project estimation, risk management, and configuration management.

- **Project Estimation:** I learned about different estimation techniques like Function Point Analysis (FPA), COCOMO, and Wideband Delphi. These methods help in predicting project effort and cost. Understanding estimation by analogy helped me see how past projects influence new ones. One key takeaway was that estimation is an ongoing process and needs regular updates as the project progresses.
- **Risk Management:** Risk identification and assessment are crucial for project success. I explored different types of risks, including technology risks, organizational risks, and estimation risks. Learning about mitigation strategies like contingency planning and proactive decision-making has helped me see how risks can be managed effectively.
- **Configuration Management:** I studied how managing different versions of software and keeping track of changes prevents errors and delays. The four key areas—identification, control, status accounting, and auditing—ensure software remains stable and maintainable throughout the project lifecycle.

Applications in Real time projects:

- I worked on a real-time project where I used *Wideband Delphi* for effort estimation. Initially, team members had different estimations, but after discussions, we reached a consensus, leading to better accuracy in planning.
- In a web development project, I applied risk assessment techniques to identify potential issues such as third-party API failures and changing client requirements. We created backup plans and allocated additional resources to handle unexpected changes.
- For configuration management, I set up a Git repository for version control. This helped track code changes efficiently, allowing team members to work without conflicts and ensuring smooth collaboration.

Peer Interactions:

- Engaged in team discussions on estimation techniques and debated when to use *COCOMO* vs. *Function Point Analysis*. This helped me understand when each method is more effective based on project size and complexity.

- Conducted a risk identification session with my peers, where we listed potential risks for a mobile app development project and devised mitigation strategies. This exercise helped us identify hidden challenges in project execution.
- Collaborated with my team to implement a structured *Configuration Management Plan* using Git and JIRA. We ensured that each version of the software was properly documented and tested before deployment.

Challenges Faced:

- **Effort estimation inaccuracies:** Initially, our estimates were either too optimistic or too pessimistic. We had to refine our approach by considering past data and breaking tasks into smaller units.
- **Managing unforeseen risks:** Despite planning, some risks, like last-minute client requirement changes, affected the project timeline. This highlighted the importance of having flexible risk mitigation strategies.
- **Getting the team to adopt Configuration Management best practices:** Some team members were not familiar with Git, so we had to conduct a short training session to ensure everyone followed version control guidelines properly.

Personal Development Activities:

- I practiced risk assessment by applying it to a side project where I built a small web application. I identified risks such as database failures and third-party API downtime and implemented contingency plans.
- Explored advanced estimation techniques beyond what we covered in class, particularly hybrid models that combine *analogy-based and parametric estimation*.
- Practiced *configuration audits* by reviewing changes in our project repository and ensuring that all modifications were properly documented and tested.

Goals for the Next Week:

- I have a group project presentation in front of my class, so I will focus on preparing and rehearsing my part to ensure a strong delivery.
- I also have pitches nominations, where I need to evaluate and nominate the best projects from my peers. This involves carefully assessing project innovation, feasibility, impact, and presentation quality.
- If time permits, I will also try to continue my learning on cost estimation techniques by analyzing real-world project budgets and improving risk management strategies for my current team project.
- Conduct a formal configuration audit on my project to ensure version control best practices are followed and to track any inconsistencies in documentation. This may not be feasible this week due to my presentation and nomination tasks, but I will try to plan it.