

Name: SASIKIRAN SIVAKUMAR (40267002)

Course: SOEN-6841 (SOFTWARE PROJECT MANAGEMENT)

Journal URL: <https://github.com/Sasikiran-31/SOEN-6841-40267002>

Chapters Covered (3 to 6)

Dates Range of activities: [01-23-25 to 02-7-25]

Date of the Journal: [02-8-2025]

Learning Journal – 2

Key Concepts Learned

Chapter 3: Software Project Effort and Cost Estimation

- Effort estimation techniques: Function Point Analysis, Wide Band Delphi, and COCOMO models.
- Cost estimation methods: Activity-based and iteration-based estimation.
- Importance of schedule estimation and resource allocation for project feasibility.
- **Takeaway:** While estimating effort for a software module, I applied the Wide Band Delphi method and found significant variations in expert opinions, which highlighted the complexity of subjective estimation.

Chapter 4: Risk Management

- Identifying risks: Resource unavailability, scope creep, and unrealistic estimates.
- Categories of risks: Budget, schedule, quality, and technology risks.
- Strategies for risk mitigation and importance of a structured risk management plan.
- **Takeaway:** In a simulated case study, I analysed a project that suffered from scope creep due to undefined requirements, emphasizing the need for continuous risk assessment.

Chapter 5: Configuration Management

- Ensures consistency in product development via version control and change management.
- Key techniques: Configuration control, status accounting, and auditing.
- Helps reduce errors and ensures seamless updates across project phases.
- **Takeaway:** Using Git for version control demonstrated how small changes in code can be tracked effectively, reducing integration conflicts.

Chapter 6: Project Planning

- Approaches: Top-down and bottom-up project planning.
- Work Breakdown Structure (WBS) for efficient task segmentation.
- Integration of risk management in planning for preparedness.
- Optimization of resource allocation and scheduling.
- **Takeaway:** While planning a sample project, I used WBS to break down tasks and noticed an improvement in task delegation and tracking.

Application in Real Projects

- Cost estimation techniques ensure financial feasibility in projects.
- Risk management reduces uncertainties and improves project stability.
- Configuration management helps maintain structured updates and version control.
- Planning methodologies improve scheduling efficiency and workforce management.
- **Challenging Component:** Implementing AI-based prediction models for estimating cost variations improved project forecasting accuracy.

Peer Interactions and Collaboration

- Discussed estimation methods and risk mitigation strategies with peers.
- Received feedback on configuration management techniques.
- **Experience:** A peer's explanation of how their organization handles risk categorization helped me refine my understanding of mitigation techniques.
- **Breakthrough:** Understanding how version control is applied in a collaborative environment gave me insight into managing large-scale software development.

Challenges Faced

- Difficulty in selecting the most suitable effort estimation technique.
- Struggled with prioritizing and categorizing risks effectively.
- **Example:** Faced challenges in applying Function Point Analysis due to unclear requirements; resolving it required breaking down requirements further.
- **Solution:** Conducted additional research and discussions to overcome challenges.

Personal Development Activities

- Explored Microsoft Project and Git for project planning and version control.
- Attended an online seminar on advanced risk management techniques.
- **Experience:** Practicing cost estimation using industry case studies provided practical insights beyond theoretical knowledge.

Goals for the Next Week

- **Short-term goals:** Practice cost estimation using real-world datasets. Develop a sample risk management plan with case-based analysis.
- **Long-term goals:** Master Agile project management methodologies. Gain deeper knowledge of configuration management techniques with real-world applications.