Learning Journal Template

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Course: SOEN 6841 - Software Project Management

Journal URL: https://github.com/Mayank1232/SPM_2024

Week 3-5: 20/01/2025 - 02/02/2025

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- **Key Concepts Learned**
  - Software projects are effort-dependent and require effective estimation techniques.
  - Experience-based and algorithmic cost modeling are the foundations of project estimation success.
  - Function Point Analysis provides a standard unit of software functionality measurement.
  - Risk management consists of identification, analysis, and minimization of potential risks.
  - Risk response encompasses acceptance, avoidance, transfer, and mitigation.
  - Top-down and bottom-up are two project estimation and task management techniques.

- **Application in Real Projects**
  - Effort estimation, if accurate, helps in establishing realistic project objectives and resource allocation.
  - Analogous estimation, based on experience, helps in predicting new project costs based on historical data.
  - Function Point Analysis helps in identifying the user requirements and establishing functionality metrics for software projects.
  - Identification and mitigation of risks at an early stage guarantee project flow and less possibility of disruption.
  - A structured planning approach, i.e., top-down and bottom-up strategies, needs to be used in planning large and intricate software projects.

- **Peer Interactions**
  - Addressed issues of experience-based and algorithmic methods with peers through group discussion.
  - Shared knowledge on software project application of estimation by analogy and its practical advantages.
  - Performed group practice exercises in Function Point Analysis for software measurement competence.
  - Established likely risks in software projects and learned response mechanisms for improving risk management efficacy.

- Collaborated with peers in comparing top-down and bottom-up planning techniques in project cost and scheduling management.
- Presented case studies to fellow students on effective risk mitigation strategies in software projects.

❖ **Challenges Faced**

- Difficulty in comprehending the actual use of algorithmic cost modeling in dynamic project contexts.
- Difficulty in appropriately valuing parameters in quantitative models for risk estimation.
- Learning to balance bottom-up and top-down planning methods for complicated projects.
- Difficulty in using Function Point Analysis on unknown or variable project requirements in a timely fashion.
- Found it difficult to predict the possible effect of single risks on project planning.
- Needed more explanation about how to use classical project management techniques in Agile environments.

❖ **Personal Development Activities**

- Researched other sources of algorithmic cost modeling to gain additional knowledge on estimation techniques.
- Read real-case examples and case studies of effective risk management in software projects.
- Learned various techniques of project planning, i.e., top-down and bottom-up approaches, to enhance personal knowledge.
- Attended seminars on risk management techniques to enhance knowledge on proactive response techniques.
- Completed self-learning modules on estimation and planning techniques to enhance future project application.

❖ **Goals for the Next Week**

- Increase knowledge in algorithmic cost modeling by looking for additional real-life examples.
- Look for case studies on projects where risk management has been a driver for success.
- Look for applications of Function Point Analysis in Agile projects.
- Engage peers in a mini-project to apply top-down and bottom-up planning approaches.
- Look into Agile methodologies and practices for minimizing risks to bridge the gap between traditional and new project management best practices.