Learning Journal

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Course: Software Project Management

Journal URL: https://github.com/SahebChandok/SOEN-6841_LearningJournal

Dates Rage of activities: 29 January 2025 – 9 February 2025

Date of the journal: 9th February 2025

Key Concepts Learned:

This week, I explored key concepts related to effort and cost estimation in software project management, along with risk management strategies. I gained insights into various estimation techniques such as function point analysis, wide-band Delphi, and the COCOMO model. These techniques help in making accurate predictions regarding the effort required to develop software projects. Additionally, I learned that experience-based and algorithmic cost modeling approaches play a significant role in estimation accuracy.

In risk management, I learned about different types of project risks, including estimation risks, resource unavailability, technology obsolescence, and schedule risks. Risk assessment involves identifying, analyzing, and prioritizing risks to mitigate their impact on project progress. I also understood the importance of risk response strategies like avoidance, transference, mitigation, and acceptance, which are crucial for maintaining project stability.

Application in Real Projects

The concepts of effort estimation are highly applicable in real-world software development projects. By using function point analysis and COCOMO models, project managers can estimate required effort and costs, ensuring that resources are allocated effectively. For example, in projects involving iterative development, effort estimation techniques must adapt to changing requirements, making estimation more dynamic and flexible.

Risk management is another vital component that applies to real-world projects. Implementing risk identification and mitigation techniques allows project teams to anticipate potential issues before they become major obstacles. For instance, by applying risk prioritization, teams can focus on addressing high-impact risks early in the project lifecycle, reducing project delays and budget overruns.

Peer Interaction

Discussions with my peers Abhijit Banerjee and Arjun Yadav provided diverse perspectives on the challenges of project estimation and risk management. Collaborative exercises in effort estimation, such as using the Delphi method, helped refine the accuracy of individual estimates by incorporating multiple viewpoints. Peer discussions on risk assessment highlighted real-world examples of risk factors in projects, reinforcing the importance of proactive risk management. Moreover I also had a discussion with my team regarding the project progress report. We also had a discussion with our assigned TA Piyush, to get a feedback on our previous submissions and understood how we can ace the project pitch next week.

Challenges Faced

One of the main challenges I faced was understanding the complexities of algorithmic cost models, such as COCOMO. These models involve multiple factors, making it difficult to determine accurate effort multipliers and scale factors. Another challenge was applying risk assessment techniques in scenarios with limited data, where estimating the probability and impact of risks requires significant judgment and experience.

Additionally, ensuring that effort estimation techniques remain accurate throughout a project's lifecycle is difficult, as project scope and requirements often change. This challenge emphasizes the need for continuous updates and refinements in estimation techniques.

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