Learning Journal: Chapter 1, 2 and 3

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Course: Software Project Management [SOEN 6841]

Journal URL:
https://github.com/aashvi1802/SOEN6841/blob/main/40292398_Learning_Journal_1.docx

Dates Rage of activities: 16-January-2025 to 28-January-2025

Date of the journal: 28-January-2025

Key Concepts Learned:

- The material offers a comprehensive overview of software project management principles and techniques, emphasizing the integration of people, tools, processes, and technology for project success. It highlights the importance of strong leadership in guiding the project and ensures alignment with the project's scope and objectives.
- Key project management phases—initiation, planning, monitoring, and closure—are covered, with a focus on the initiation phase. This phase involves crucial activities like cost estimation, schedule creation, and risk management to set the project up for success.
- Various estimation techniques, such as Function Point Analysis (FPA), Delphi Method, and COCOMO, are introduced to evaluate effort and cost, which directly impact project design and development.
- In summary, the sessions stress the importance of early-phase planning and estimation, including project charter creation, scope management, and applying methods like Delphi, Estimation by Analogy, and COCOMO to ensure realistic timelines, budgets, and effective risk management for successful project delivery.

Application in Real Projects:

- The material covers key aspects of project management, emphasizing the importance of understanding project scope, the role of a good project manager, and the integration of people, processes, tools, and technology for success. Common challenges include resistance to change, team conflicts, and continuous training on new tools. During the initiation phase, defining the scope, setting clear objectives, and aligning stakeholder expectations are crucial, but gathering accurate information can be difficult.
- Estimation techniques like Function Point Analysis (FPA) and Estimation by Analogy are used to measure software functionality and derive effort and cost based on past projects. Real-world projects require adaptability, effective communication, and collaboration, while balancing structured methodologies with flexibility to address unforeseen issues.
- In the case of an e-commerce platform development, project management principles guide the team through stages like requirements gathering, design, testing, and implementation, while managing time, resources, and budget. Quality metrics like code efficiency and user satisfaction ensure high standards. Cost estimation methods, including statistical models and COCOMO, are used to predict timelines and resource needs, ensuring successful project delivery.

Peer Interactions:

- Introduced ourselves and shared past experiences to build a foundation for collaboration.
- Brainstormed and discussed key concepts in software project management.
- Conducted knowledge-sharing sessions via Google Meet on various topics.
- Held goal-setting sessions to ensure alignment of group objectives.
- Collaborated on understanding and applying the Wideband Delphi method.
- Exchanged insights on how to adapt different estimation techniques to various project types.

Challenges Faced:

- Initially, I struggled to understand the unique challenges of software projects, particularly their invisible and adaptive characteristics.
- I needed more clarity on how project management practices could be adapted to address these challenges.
- Defining the complete project scope was difficult, as it was hard to account for all features and quality criteria.
- Developing project charters, estimating budgets, and creating initial schedules proved challenging and required further explanation.
- Estimating effort for new technologies and complex projects was a significant hurdle.

Personal Development Activities:

- I focused on further reading about challenges unique to software projects, particularly issues around invisibility and flexibility.
- I attended a web-based workshop on adaptive management techniques to help project managers overcome these challenges.
- To enhance my skills, I enrolled in an online workshop that focuses on defining and communicating project scope, which is a core competency in project management.
- I researched advanced algorithmic models like COCOMO to deepen my understanding of project cost estimation.

Next Week Goals:

- Explore how project management methodologies can be tailored to address the specific challenges of software projects.
- Deepen knowledge on creating a well-defined project charter by applying the lessons learned.
- Ensure that project objectives set using the SMART criteria are both achievable and measurable.
- Strengthen my understanding of estimation techniques through practical examples.
- Take part in a group exercise focused on resource allocation and cost estimation.