Learning Journal: Chapter 1, 2 and 3

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Course: Software Project Management [SOEN 6841]

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

Date of the journal: 28-January-2025

Key Concepts Learned:

- **Chapter 1:**
    - Discussed what projects, with special regard to software projects, are and how they differ from other kinds of projects.
    - Focused on different processes and subprocesses for the management of software projects, underlining the importance of how people, tools, processes, and technology all go into bringing the project to a good end.
    - Learned the attributes of a good project manager and how leadership ensures that a project goes through with success.
    - Also learned why identification, measurement, and analysis are needed in identifying project management metrics to ensure the efficiency and effectiveness of projects.

- **Chapter 2:**
    - Looked at the initiation or starting phase of the projects, its purpose, and the key activities involved.
    - Gained knowledge on project scope and objectives, why they are important, and how they relate to the overall goals of the undertaking.
    - Looked at the process for accurately defining project scope, developing a project charter, and defining clear objectives.

- **Chapter 3:**
    - Techniques for effort estimation (e.g., Function Point Analysis, Wideband Delphi, Estimation by Analogy).
    - Cost estimation based on effort and parameters like hourly wages.
    - Resource estimation for staffing needs and skill sets.

Overall, the session provided a basic understanding of project management principles, particularly in the context of software development. The session went into details on the creation of a project

charter, scope management, and metrics that are specific to software, which shows how important effective planning and initiation are.

Application in Real Projects:

- **Chapter 1:**
  - Understand what project scope involves, the characteristics that show a good project manager, and the integration of people, processes, tools, and technology. **Challenges:** Faced resistance to change in adopting integrated processes, team dynamic conflict, and frequent training in new tools or methodologies. **Benefits:** Improved project coordination, enhanced efficiency and success rate due to streamlined processes and effective leadership.

- **Chapter 2:**
  - Applied concepts on the initiation of the project, including the implementation of project charters, scope, and clear objectives.
  - **Challenges:** Faced problems with obtaining initial accurate information, stakeholder expectation alignment, and the match of project objectives with organizational goals.
  - **Advantages:** Enhanced team collaboration, smoother workflow related to the project, and better results because of clearly defined objectives and scope.

- **Chapter 3:**
  - Used Function Point Analysis to measure software functionality.
  - Applied Estimation by Analogy to derive effort and cost for similar projects.
  - Integrated cost factor analysis to manage budgets effectively.

Projects, in the real world, are successfully completed by adapting to dynamic environments. The objectives can be achieved through effective communication and collaboration among team members. There is a need to balance rigidity in methodologies with flexibility to manage unforeseen issues.

Peer Interactions:

Engaged in meaningful activities with colleagues throughout the week to enhance collaborative learning. Activities included:
- Introduction sessions to identify and share experiences.
- Brainstorming on the conceptual aspects of software project management.
- Knowledge-sharing sessions on selected topics were conducted through Google Meet.
- Sessions on goal setting were held to align objectives of the group members.
- Collaborated on understanding Wideband Delphi through group discussions.
- Exchanged insights on adapting estimation techniques to diverse project types.

Challenges Faced:

- **Chapter 1:**
  - Initially did not clearly grasp the unique problems of software projects, such as invisible and adaptive characteristics.
  - Needed more explanation regarding the adaptation of project management practices to such characteristics.

- **Chapter 2:**
  - Difficulty of complete definition of project scope so that all features and quality criteria were considered.
  - Issues in developing the project charters, estimating the budget, and initial development of schedules of the projects which require further explanation for clarification.

- **Chapter 3:**
  - Difficulty in estimating effort for new technologies and complex projects.
  - Adjusting resource estimates due to varying team productivity.

Personal Development Activities:

- **Chapter 1:**
  - Further reading about issues peculiar to software projects concentrating on invisibility and flexibility challenges.
  - A web-based workshop on adaptive management techniques for a project manager to overcome such challenges.

- **Chapter 2:**
  - Do research on best practices for developing a comprehensive project charter to build skills in project initiating and planning.
  - Take an online workshop related to the definition and communication of project scope to enhance the core competencies required to perform the project work.

- **Chapter 3:**
  - Researched advanced algorithmic models like COCOMO.
  - Practiced calculating function points and effort ranges using case studies.

Next Week Goals:

- **Chapter 1:**
  - Understand how project management methodologies could be adapted to meet ch allenges posed by software projects.
  - Elucidate specific areas related to software project management.
  - Participate in group discussions and contribute one's views on how such principles can be applied in project management.

- **Chapter 2:**

- o Facilitate enhancement of knowledge on building a well-defined project charter through studied and applied lessons.
- o Help and support one's peers in enhancing their skills on the setting of a well-defined project scope.
- o This means that, when applying SMART criteria to setting project objectives, these should be both measurable and realistic.

- **Chapter 3:**
  - o Refine understanding of estimation techniques through hands-on examples.
  - o Participate in a group exercise on resource allocation and cost estimation.
  - o Develop a sample budget using activity-based costing.