Learning Journal - 1

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Course: Software Project Management (SOEN 6841)

Journal URL: https://github.com/prjbhuva/SPM-Learning-journal

Dates Range of activities: 09/09/2024 – 16/09/2024

Date of the journal: 20/09/2024

Key Concepts Learned:
This week, I studied the basic principles of software project management over three important chapters.

- What I gathered from Chapter 1 about software projects is that they are unlike routine jobs because they have a defined start and end. Software projects are no different from other projects, although they bear special characteristics associated with invisibility and complexity. I have also gone through project management phases regarding initiation, planning, monitoring, control, and closure.

- Chapter 2 - Project Initiation: I focused on developing the project charter, defining the scope of the project, and setting the objectives. Understanding the importance of initiating the project with clear-cut objectives and scope means that the goals and boundaries of the project are well outlined.

- Chapter 3: Effort & Cost Estimation: I was introduced to various estimation techniques, such as analogy-based and expert judgment approaches. I also explored how these techniques are applied to both waterfall and iterative models.

Application in Real Projects:
In real-world projects, the principles from Chapter 1 can help in identifying routine tasks versus projects, guiding the decisions of resource and time allocation.
E-commerce Platform Development: When building an e-commerce website like Amazon or Shopify, project managers need to apply software project management principles. Here, integrating people, tools, processes, and technology is critical to ensure smooth deployment, scaling, and user experience management. The project might require specialized task allocation for frontend, backend, and database teams, with a close eye on customer satisfaction.

Further next week, I learnt how defining a clear project charter and scope are important since these are foundational documents. **Government IT Projects (e.g., E-Governance Systems)**:

Governments often launch e-governance platforms to enable citizens to access services online. For instance, the **IRCC** was initiated to create a digital identity system for over a billion citizens. The project required a detailed **project charter**, defining objectives like unique identification for each citizen and project scope that included infrastructure setup, software development, and training. Such a project would need careful **project initiation**, ensuring stakeholder involvement and defining clear deliverables.

For effort estimation (Chapter 3), techniques like analogy-based estimation could be practically applied by comparing new projects to similar past ones, which helps in generating realistic effort estimates.

Peer Interactions:
During our peer discussion on project initiation, I actively engaged by sharing insights on the importance of a well-defined project charter and SMART objectives to manage scope effectively. I reflected on how feedback from peers helped me refine scope management techniques, particularly the use of a formal change request process. The collaboration provided valuable perspectives on handling scope creep and aligning project objectives with stakeholder expectations. This exchange contributed to a breakthrough in my approach to defining project boundaries and success criteria.

Challenges Faced:
The main challenges were to clearly define the scope. While the chapter insisted on having a highly detailed scope to prevent scope creep, it felt rather difficult to balance the stakeholder expectations by setting realistic boundaries of the project. The second challenge was to understand the full extent of a project charter and its impact on project success. I learnt that though the project charter provides the overall purpose and direction, the creation of a comprehensive charter that can account for future uncertainties is hard to develop.

Personal Development Activities:
This week, I dedicated time to improving my understanding of project planning and control metrics. I saw an online seminar that focused on advanced software project management techniques like **PERT/CPM** and how they help find critical paths for projects. I also spent time reading case studies to better understand how to apply these concepts in a managerial role.

Goals for the Next Week:
1. Dive deeper into understanding the **COCOMO model** and its real-world applications for large-scale projects.
2. Explore the **use of historical data** in improving the accuracy of effort estimation, particularly for new projects.
3. Begin working on a personal project to implement the estimation techniques learned and apply them to a small software development cycle, thus improving my hands-on experience in **project initiation and planning**.