

Learning Journal 1

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Course: Software Project Management (SOEN 6841)

Journal URL: <https://github.com/GowthamNalluri7/SPM-2025/LearningJournals>

Dates Range of activities: 16/01/2025 - 24/01/2025

Date of the journal: 24/01/2025

Key Concepts Learned:

This week's sessions introduced foundational concepts in **Software Project Management**, focusing on **project initiation** and **planning**. Key topics included defining a **project** (a time-bound activity with specific goals), the role of a **project charter** to authorize projects, and the importance of **SMART objectives** (Specific, Measurable, Achievable, Relevant, Time-constrained). We also explored **project scope**, **budget estimation**, and **scheduling**, along with the roles of **project managers**, **leaders**, and **Scrum Masters** in software projects. Methodologies like **project division** for cost estimation and the integration of **software development lifecycle processes** (e.g., requirement gathering, design, testing) into project phases were also covered. These concepts provide a framework for managing software projects effectively.

Case Studies (Chapter 1 & 2):

From the two case studies, I learned about a **SaaS software vendor** developing a sophisticated **appointment scheduling system** for **grocery retail supply chains**. The project aimed to reduce waiting times for trucks during loading and unloading at warehouses, addressing a significant market need. The **project charter** clearly defined the objectives, emphasizing the vendor's goal to become a leader in this space. The **project scope** was divided into **four iterations** (releases 5.3, 5.5, 5.8, and 6.0), each introducing new constraints like **truck type**, **labor availability**, and **time gaps between appointments**. The final iteration focused heavily on **testing** to ensure **reliability** and **robustness**. This case study highlighted the importance of **iterative development**, **clear scope definition**, and handling **real-world constraints** to deliver a successful software product. It also demonstrated how **project management processes** (initiation, planning, and execution) are applied in complex, real-world scenarios.

Application in Real Projects:

This week's concepts can be applied to real-world software projects by using a **project charter** to formally authorize and define the project's purpose, setting **SMART objectives** for clear and measurable goals, and creating a **detailed project scope** to avoid scope creep and align with

stakeholder expectations. Techniques like **budget estimation**, **scheduling**, and **project division** can help manage resources and timelines effectively, especially in large-scale projects. However, challenges like accurately estimating scope and budget, or misalignment between stakeholders and the team, can arise, potentially leading to scope creep. Despite these challenges, proper planning and clear objectives reduce risks, improve resource allocation, and increase the chances of project success.

Peer Interactions:

In the first class, I didn't know anyone, so I interacted with a few people to find a teammate for the **topic analysis presentation**. I was able to find someone, and we discussed how the course was structured and what to expect. We also decided to use concepts like **project charter**, **scope**, and **SMART objectives** for our course project. Moving forward, I plan to interact with more classmates in upcoming sessions to discuss the lessons taught and gain different perspectives on the topics covered.

Challenges Faced:

This week, I faced challenges in understanding the **nuances of project division** and how it differs from traditional estimation techniques. It also took time to grasp the **interdependencies between tasks** in project scheduling and how to accurately estimate their durations. Additionally, clarifying the differences between roles like **project managers**, **leaders**, and **Scrum Masters**, and how they collaborate in Agile environments, was a bit confusing. The case studies, while insightful, were initially difficult to fully comprehend, and I still feel I don't completely understand all the details. To improve, I plan to spend more time on **project scheduling techniques**, **task dependencies**, and exploring **Agile methodologies** in depth, especially the role of a Scrum Master.

Personal Development Activities:

The activity that I undertook for my own professional development is the creation of accurate project charters for a few projects that I have already done. While doing exercises, I learned about recent government IT projects and discovered some great open-source projects. These projects excite me and working on them will help me become a better software developer.

Goals for Next Week:

My goals for the upcoming week are to improve my understanding of project scheduling techniques, especially task dependencies and accurate duration estimation, as these were challenging for me this week. I also plan to explore Agile methodologies further, particularly the role of the Scrum Master and how it differs from traditional project management roles. Additionally, I will focus on analyzing and comparing project charters, scopes, and objectives for different types of projects to better understand how they address similar problems in unique ways. Finally, I aim to read chapters 3 and 4 to prepare for the next class.