**Learning Journal**

**Student Name:** Neha Sudhir Himane

**Course:** Software Project Management

**Journal URL:** <https://github.com/nehahimane/SPM/blob/main/src/40219032_Neha_Himane_Learning_Journal.docx>

**Week 1:** Jan 15 – Jan 21

**Date:** 24 Jan 2024

**Key Concepts Learned:**

The focus was on the fundamental concepts of project management this week. A project is defined by its specific start and finish dates and seeks to achieve predetermined objectives. While software initiatives are similar to other types of projects, they provide unique issues such as invisibility, complexity, conformity, and adaptability. Project phases were introduced, including commencement, planning, monitoring and control, and closure, each with its own set of sub-processes.

SMART Objectives i.e. Specific, Measurable, Achievable, Relevant, Time-constrained objectives are introduced that provide a framework for defining project success criteria.

In addition, a technique called Project Division is introduced, which entails hiring an expert to evaluate effort and cost before accepting bids from software development businesses for project design and implementation.

**Application in Real Projects:**

Understanding project characteristics and software project issues will allow you to approach real-world projects more strategically. The importance of specialised skills in software project management, such as software engineering and testing, was stressed. Understanding the difference between project procedures and industry-specific processes, such as the software development life cycle, is critical for good project management.

**Peer Interactions:**

Discussions with peers provided a variety of opinions on project management. The investigation into how others viewed the challenges of software projects broadened my perspective and raised thought-provoking topics.

**Challenges Faced:**

Concepts like project stages and sub-processes required careful distinction. Making the distinction between project procedures and industry-specific processes was difficult, but necessary for a thorough understanding of the subject.

**Personal development activities:**

I participated in more readings, and I attended an online webinar about the most recent developments in project management. This external learning experience offered insights into developing techniques and tools, increasing my understanding.

**Goals for the Next Week:**

Next week, I aim to look more into software project management processes, namely requirements management, design management, and software testing. In addition, I intend to look into relevant case studies to apply theoretical knowledge to real-world scenarios.

**Week 2:** Jan 28 - Feb 3

**Date:** 2 Feb 2024

**Key Concepts Learned:**

This week, I concentrated on software project management's project effort and cost estimation. Understanding the inherent difficulties in estimating work because software development is an intangible process was one of the key ideas. In particular, I examined two main strategies: Algorithmic Cost Modelling and Experience-Based Techniques. Experience-based methods, such as analogous estimation, include applying multiplication factors, analysing estimates for subsystems, and comparing the new project with related previous projects. In contrast, algorithmic cost modelling estimates effort as a mathematical function by taking into account a number of attributes. This expanded on the groundwork established the week before, particularly with relation to project scope, objectives, project charter, and activities during initiation.

The key concepts learned about project effort and cost estimation in software project management are closely aligned with the fundamental principles introduced in the broader understanding of project management. Planning is one of the project phases that are highlighted in the curriculum, therefore the ideas that are acquired here are particularly relevant and provide budgeting and resource allocation insights. The implementation of SMART objectives aligns with the quantitative dimensions of effort and cost estimation, hence enhancing quantifiable and attainable project success criteria. Furthermore, the Project Division technique—which is covered in the content—directly depends on the proficiency in effort and cost estimation, highlighting the significance of these ideas in assisting with decision-making related to project design and implementation. All things considered, the concepts acquired improve the real-world implementation of project management principles, especially when it comes to handling the particular difficulties presented by software projects.

**Reflections on Case Study/course work:**

Engaging in the case study related to project effort and cost estimation provided valuable insights into the practical challenges of applying theoretical concepts. A notable takeaway was the significance of Experience-Based Techniques.   
The Software as a Service (SaaS) vendor's path is followed in the 3rd case study, which highlights the vendor's historical estimations, strategic staffing choices, and the challenges of a current project. The vendor used incremental development, initially projecting a product size of 500,000 SLOC. They looked into their possibilities and decided to go with offshore service providers for a staff of 50 because they needed a larger crew. Due to its sophisticated logic, the current project entails constructing an appointment scheduling engine, search capability, integration, and thorough testing. The project's estimated effort and cost of $300,000 SLOC highlights the careful preparation necessary for software project management. The case study emphasized that despite their subjective nature, these techniques, such as analogous estimation, play a crucial role in making initial project effort estimates.

**Collaborative Learning:**

The collaborative learning experience facilitated by the case study offered insightful knowledge about the real-world difficulties and decision-making procedures associated with software project management. Interacting with colleagues throughout the investigation provided a range of viewpoints, which improved our comprehension of the challenges the SaaS provider faced. Particularly insightful conversations included the importance of testing in a complex logic environment, offshore development, and hiring decisions. Group members' explanations and hearings of many points of view helped the group understand the case study more thoroughly, highlighting the collaborative element of learning in interpreting real-world project management circumstances.

**Further Research/Readings:**

I complemented the course material with further readings on project beginning approaches and

best practices. I delved into the book: " Software Project Management: A Process-Driven Approach" by Ashfaque Ahmed. This book provides comprehensive coverage of various aspects of software project management, including estimation techniques, planning, and execution. It offers practical insights and case studies that can complement the concepts discussed in your course.

Explored additional resource, such as upcoming webinar on “Mastering Effort and Cost Estimation in Software Projects” where professionals in the field will discuss the nuances of precise estimate methods. Find more about algorithmic cost modelling, experience-based approaches, and the difficulties in evaluating work for intangible software products. We'll examine real-world case studies that highlight effective tactics and lessons discovered. Regardless of your level of experience, this webinar will help you become a better decision-maker, allocate resources more efficiently, and make sure your software projects are successful. Don't pass up this chance to learn insightful advice and useful hints from professionals with a wealth of software development industry expertise.

**Adjustments to Goals:**

After giving the objectives from last week some thought, I saw that I needed to change course. I've made the decision to give a deeper understanding of effort and cost estimation methodologies priority because of the intricacy of the current software project management course material. As a result, I'm changing to dedicate more time to learning about algorithmic cost modelling and honing experience-based techniques. This change in emphasis will help me fully understand these difficult ideas, which is in line with my main objective of becoming an expert in software project management by the conclusion of the semester. This modification shows my dedication to modifying my learning approach to meet the changing needs of the course content.

... Continue the Weekly Format for Weeks 3-13 ...

**Final Reflections:**

**Overall Course Impact:**

Summarize the overall impact of the course on your understanding.

Highlight key insights and transformations in your perspective.

**Application in Professional Life:**

Discuss how the knowledge gained in this course can be applied in your professional life.

Consider specific scenarios or projects where these skills would be valuable.

**Peer Collaboration Insights:**

Reflect on the value of peer collaboration throughout the course.

Consider how interactions with classmates contributed to your learning.

**Personal Growth:**

Share insights into your personal growth as a learner.

Identify areas where you have seen improvement or development.

Note: Ensure that the journal is updated weekly, at least twice a week, and that the publicly-accessible cloud service URL is provided for easy access by teaching assistants and for potential test-related inquiries.