**Week 5:** Feb 18 – March 09

**Date:** 9.02.2024

**Key Concepts Learned:**

During the first week I was studying for Midterm exam. The chapters which I studied was from chapter 1 – 6 which I had learned and mentioned what I had learned on previous journal. However, for sake of summarization the following will includes what I have learned:

1. Introduction to Software Project Management:

- Understanding the fundamentals of software project management, including its importance in ensuring successful project outcomes.

- Exploring the roles and responsibilities of project managers and team members in software projects.

- Recognizing the challenges and complexities inherent in managing software projects, such as changing requirements and technical constraints.

2. Project Initiation Management:

- Discussing the initial phase of a software project, which involves defining project objectives, scope, and stakeholders.

- Examining techniques for identifying project requirements and constraints, such as stakeholder interviews, surveys, and feasibility studies.

- Emphasizing the significance of clear communication and alignment among stakeholders during project initiation to set the stage for successful project execution.

3. Software Project Effort and Cost Estimation:

- Exploring methodologies and techniques for estimating the effort and cost required to complete a software project.

- Introducing various estimation models, including expert judgment, analogy-based estimation, and parametric estimation.

- Discussing factors that influence effort and cost estimation, such as project size, complexity, and team expertise, and the importance of refining estimates as the project progresses.

4. Risk Management:

- Understanding the concept of risk in software projects and its potential impact on project objectives.

- Identifying common sources of risk in software projects, such as technical challenges, resource constraints, and changing requirements.

- Discussing strategies for risk identification, assessment, mitigation, and monitoring to minimize the likelihood and impact of adverse events on project outcomes.

5. Configuration Management:

- Introducing the concept of configuration management in software projects, which involves managing and controlling changes to project artifacts and deliverables.

- Exploring the role of configuration management tools and techniques in ensuring version control, traceability, and consistency throughout the project lifecycle.

- Highlighting the importance of configuration management in promoting collaboration, reducing errors, and facilitating project scalability and maintenance.

6. Project Planning:

- Discussing the process of project planning, which involves defining project goals, objectives, deliverables, schedules, and resources.

- Introducing techniques for creating project plans, including work breakdown structures (WBS), Gantt charts, and network diagrams.

- Emphasizing the iterative and adaptive nature of project planning, with the need for regular updates and adjustments based on changing project requirements and constraints.

After that for 2 weeks I was working on the project phase 2, Which I was responsible for WBS and project proposal. Moreover, as a leader of the team I had to set up the meeting with team members, answering their questions and trying to finalize the project appropriately.

During this time I learned how to do the WBS and how real project management should be done by creating the Gantt Chart by utilizing excel.

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

Engaging in a real project involving the development of a 3D printer and the subsequent endeavor to introduce intelligence through coding has provided profound insights into various aspects of the course material. One of the primary insights gained revolves around the intricate interplay between theoretical knowledge and practical application. While the course content equipped me with foundational understanding, it was the hands-on experience with the 3D printer project that truly solidified my comprehension.

One significant aspect that surfaced during this journey was the importance of interdisciplinary knowledge. The course content, which spans across various fields such as engineering, computer science, and possibly artificial intelligence, laid the groundwork for understanding the complexities involved. However, it was during the practical implementation phase that I realized the necessity of integrating insights from multiple disciplines. For instance, while coding intelligence into the 3D printer, I had to draw upon principles from machine learning and robotics in addition to my existing knowledge of programming.

Furthermore, working on the project underscored the significance of adaptability and problem-solving skills. Despite meticulous planning, unforeseen challenges arose during the implementation phase. These challenges ranged from hardware malfunctions to algorithmic complexities. Navigating through these hurdles necessitated a flexible mindset and the ability to devise innovative solutions on the fly. This practical aspect resonates deeply with the course's emphasis on fostering a problem-solving mindset and the importance of agility in addressing real-world scenarios.

Moreover, the project shed light on the dynamic nature of technology and the imperative of staying updated with emerging trends. The decision to introduce intelligence into the 3D printer exemplifies this aspect, as it aligns with the current trend of incorporating AI into various domains. Through this endeavor, I not only expanded my knowledge base but also cultivated a forward-looking perspective, which is crucial in a rapidly evolving technological landscape.

In essence, the experience of working on the 3D printer project and embarking on the journey to imbue it with intelligence has been immensely enriching. It has deepened my understanding of the course material by providing real-world context and highlighting the interconnectedness of different concepts. Moving forward, I am better equipped to leverage this newfound knowledge and insights to tackle future challenges and contribute meaningfully to the advancement of technology.

Furthermore, during these weeks we had to work on real project which belonged to the SPM course so I take the view that it was totally real job and I had to exactly act like project manager. I had to allocate the specific time for any part of the project. Set up the time. Create the Gantt chart. Learning about the different part of the project such as risk management, budgeting, feasibility, and solution proposal.   
By learning about these information, I am confident that I am able to implement the same way for my real project and thesis.

**Collaborative Learning:**

During the week, I had a group study with some of my classmates and we studied some chapter with each other. Furthermore, I could ask some of my problem from them and they kindly assisted me to make me understand all.

After that for both week 2 and 3, thanks to the project activities we had have so many meeting with team members and TA regarding the project. Furthermore, for becoming surer about whatever I am doing for WBS I had to visit the one grad student who had the experience in real project management job to ask about accuracy of our work.

**Further Research/Readings:**

The standout activity in Software Project Management (SPM) frist week involved studying for midterm exam. The most activity and studying included book and slides. However, because I found the chapters and the content so difficult, I subscribed on the AI quiz generator to practice more. However, exam was super confusing and hard.

For next 2 weeks, too many activities were done for learning about how we can do the project. I had to study the book and other references deeply to understand the concept of any project requirement. Furthermore, I studied too many real project, samples and templates to figure out how I can accomplish the Gantt Chart and how I can do the WBS. During this time, I was also connected to Prof and I was asking her questions. Moreover, I had the meeting with TA to ask him to confirm my work.

**Adjustments to Goals:**

During these weeks, the met goal summary will be as follows:

* Study for exam for chapter 1-6
* Working on solving the sample question and quiz for exam
* Updating the journal report
* Working on Project phase 2.
* Brush up through the SPM.
* Finalizing the project phase 2.
* Having so many meeting regarding the course and project.

The activity from the preceding week sufficiently prepared me to grasp the concept of SPM. However, I gave the super confusing exam, and I don’t know about my performance. I expected something easier and more understandable. I have understood the course by exam was super hard for me.

Furthermore, Finally the upcoming goal for next week will be:

* Started working on presentation preparation.
* Working on Case studies.
* Updating information.
* Having meeting with team members regarding the project responsibilities
* Studying the upcoming chapter
* Working on the next journal.