Learning Journal – 5 (Week 7) & Final Reflections

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Course: Software Project Management (SOEN – 6481)

Journal URL:

Dates Range of activities: 16-03-2025 to 29-03-2025

Date of the journal: 30-03-2025

Key Concepts Learned:
In the final week of the course, we have covered the chapters 10 to 14 of which I have learnt the concepts of chapter 10, 11 and 12 before the lecture and mentioned the same in previous journal 4. In continuation, chapter 13 deals with the concepts of software testing, problems with traditional development model in terms of testing. Concepts of verification and validation along with different testing methods and their importance. Also, learnt the concepts such as test planning and execution, test automation and test case design.

Chapter 14 which is the final chapter of the curriculum deals with the concepts of product release and maintenance which is termed to be the last phase of the software project management which deals with concepts such as product release, product maintenance strategies and product documentation and paper works. Key concepts learnt are product release management, maintenance types, process cost estimation, life cycle and techniques.

Application in Real Projects:
Testing although overlooked by most of the project teams, it is one of the core key points that contributes towards the success of the software product developed. Testing make sures the developed work produces the results that has compliance with the user requirements. Also, testing helps in identifying the bugs and defects in the software product. Testing is very necessary to be completed before the software moved into the production or the user environment where users use the software. Proper testing helps in reducing the risk of delivering the faulty software with more defects and reduces the risk of rework if any which leads to cost saving.

It is very important to set a standard process for easy delivery of the software product to the users with proper release and maintenance process. It is the responsibility of the project managers to look after delivering the right version of the product that holds all the right requirements implemented and look for the documentation that are necessary while handing over the built product to the users. Proper documentation and maintenance process helps in smooth delivery and easy access for the users to get trained to use the software.

Peer Interactions:
As we are approaching the final few weeks for the course to terminate, we are to deliver our project and prepare for the presentation. I had frequent meetings with my team and with other classmates during the lectures to study, discuss and understand the concepts for the final exam and share insights for the project deliverables.
We had brainstorming sessions to draft the project reports and also to prepare the presentation that needs to be presented to the mentor and professor along with explaining the insights of our project in

terms of software project management. Major hurdle faced was to prepare a well-designed presentation considering all the key concepts in the report under the provided time limit.

Challenges Faced:
In the chapter Software testing, most of the concepts learnt can be easily comprehended. Concepts such as test bed preparation and test automation required extra effort to understand the importance and the scenarios where they can be optimised solution, especially the test automation that reduces the effort of regression testing over iterative development.

Chapter product release and maintenance was completely a new chapter introduced to me and had to put major effort in understanding the importance of this module. Effort was more in understanding the maintenance types and maintenance process that is explained in detail with scenarios and use cases which needs some extra studies to understand the problems where these approaches can be used effectively.

Personal Development Activities:
To understand more about testing, read multiple articles on the web to understand the concepts and its use cases and improvements done over the time and how testing is done with respect to the latest software requirements especially in the AI world. Furthermore, I did the exercises and read through the textbook again to gain deeper understanding of the concepts.

Goals for the Next Week:
Since this is the last week of the curriculum, major focus is to read all the chapters again and prepare for the upcoming exam. Understand the concepts that are necessary in terms of exam by spending more time on the concepts required.

Final Reflections

Overall Course Impact:
The course was amazing and well structured with all necessary and important concepts of software project management bundled together. I was able to connect the dots between the standard processes of software project management that initiates form the project initiation phase till the project closure in a sequential order. To highlight a few interesting topics such as requirements gathering, project planning, project design, project construction, methods used in development (agile, waterfall), testing, maintenance and so on.

Thus, the course was interesting with tons of informative concepts that are used in day-to-day life of every project irrespective of the domain, software, hardware, or construction. In fact, the concepts can be termed as generic framework that should be followed for a well-directed project management process for a smooth and efficient project development. But myself as a software student, I was able to understand and comprehend the concepts of project management in terms of software projects which follows major project management processes and principles for better results.

Application in Professional Life:
The curriculum provides concepts of software project management that are necessary to maintain a healthy project management process and build the solution with minimum cost and effort that is possible through the project management practice. As a software developer with the above knowledge, I apply the following concepts in all my project undertaken.
- *Project Planning*: With the knowledge about the process of project initiation and project planning along with requirements gathering, I am confident enough in having a better communication and

understanding of customers or users needs and will be able to convert the requirements into a proper plan in terms of well-defined scope and objective and preparing the pre-development documents (technology stack, timeline, work breakdown structure , effort, and cost) with high precision.

- *Project Development methods*: I am sure that I would be able to apply the concepts of project management and decide the right software development method that can be applied on the problem statement with available information that looks forward in providing the right environment for the software development. Ensuring the right type of software development method such as agile, waterfall method can provide the right path for the project management process.

- *Risk Monitoring*: Working under the project management process, it is very necessary to consider the concept of risk identification and mitigation. I believe myself to be eminent enough to identify the possible risks in the project development that may arise during development and also derive the solution with the risk management knowledge as base. In short risk can be form any perspective such as unclear user requirements, technical difficulties, or design flaws to external influence, all of which can be mitigated or at most reduce the effect on the software development.

- *Version control*: As a software developer with knowledge over the project management. I presume to use the right configuration management process that makes the process of storing the project source code and other documents and artifacts with respect to the project to be safe and easily available to all the team members based on the accessibility rights.

- *Monitoring the development*: Monitoring the development and other project management process are necessary to always direct the progress towards the right path to achieve the goal. I will be able to understand the project progress and identify the deviations from the goal if any by utilising the concepts of project monitoring such as performance indicators, EVA, and S-curves.

- *Life-cycle Management*: This is the core concept of project management that is a series of steps that are to be followed to ensure that the project development progresses in right direction towards the goal by mitigating the risk and other constraints. Major steps of software life cycle are requirements, design, build, test, release and maintain. I strongly follow all the mentioned concepts of the life cycle for all the software projects I undertake and make sure that the projects won't deviate from the goal.

- Release and Maintenance: Project release or deliver and maintenance is the final aspect of software management and has equal importance. As a project manager, it is very important to understand the concept of project closure, delivery, and maintenance. It is very important to decide the process of project delivery and to provide the necessary maintenance to the project developed to provide good time for the users who use the product and make their life easy when they need help in using the product through maintenance. I make sure that I give enough clarity by implementing the right strategies for product release and maintenance.

Above are few important concepts that I definitely use in my future projects. Along with the above, there are other concepts that hold equal importance in the process of project management. Adding these concepts to my knowledge list makes my life easy in terms of handling the projects with optimal effort along with investment of cost and time.

Peer Collaboration Insights:

The entire course was driven with peer collaboration as an integral part of the course, that showcased the importance of networking and peer collaboration to understand and learn the concepts in terms of experiential learning. From the start till the end of the course, I was able to meet new people in the class with varied level of experience in terms of industry and academics. I grabbed the opportunity of having a conversation with most of them with respect to the topics learnt during the class hour and understand the way they blend their experiences with the topics making them unique in their own voice. This was something crazy I encountered and understood that, irrespective of any course, domain or subject, this kind of experiential learning makes oneself understand the nook and corner of the topic with varied examples that reduces the effort of finding the examples or use cases, which are readily available over a conversation.

With respect to the course, I was able to have peer collaboration every week in terms of preparing the learning journals, studying for the quiz, and preparing the reports for the project. I was part of the weekly discussions with my team members where we were analysing the project requirements and build report based on the project idea and the requirements. Also, during the exam time me and my teammates used to share our knowledge that helped in understanding the topics clearly for the exam.

I even had a good opportunity to work with one of my friend for a topic analysis where we did brain storming sessions to come up with justifications and use cases to defend out topic "How to keep the low priority project active", which deals with the necessary actions to be taken to keep the low priority projects active and look for insights so as to provide necessary information to the stakeholders to keep their interest alive on the project. I promise myself to continue this type of learning where I keep engaging with new people in terms of knowledge sharing and continuing the activities where collaboration works in better work done.

Personal Growth:

In terms of personal growth, I find myself more mature and knowledgeable in terms of project management. I strongly believe that I have picked the path where I am able to understand the user requirements with greater precision and details and provide them right solutions with consideration of possible risks and other constraints. The planning, risk assessment and software life cycle management filled my knowledge with necessary steps to be taken under critical circumstances and keep the project active and moving towards the right goal. I can clearly communicate my ideas and find right people for the collaboration to accomplish the requirements delivering the right product under optimised cost effort and work done.

Furthermore, I have noticed improvements in creating right schedules and effort estimation in my project and other works that has improved my ability in capitalizing the work hours effectively. Overall, the concepts of software project management have reshaped myself and my knowledge to maintain discipline in my work and keep track of my progress in terms of my work and my knowledge. This ultimately provide me the right direction to achieve my carrier goals in less time with right effort.