Reflective Assignment: Software Engineering Project Management

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This Module has been an interesting collection of theories I believed I was confident in and others I had not heard of before. Throughout I was challenged with group work and finding my voice in a very demanding team all while juggling the unit work and finding time to work on researching into each unit area. As always, I will be using Rolf et al.’s “What? So what? Now what?” framework (2001) to structure my reflection.

# What?

The module began with researching into basic concepts surrounding software engineering project management (SEPM). This started with software development lifecycles such as waterfall and agile as well as methodologies (Stellman & Greene, 2005). We then looked at what failures are (Lehtinen et al, 2014) and continued into looking at common failures within SEPM scenarios, the situation I looked at was the FBI VCF system failure (Eggen & Witte, 2006) which saw a failure with leadership, communication and requirement finding.

While learning all of this, in the background, group work was occurring with my team in which we were meeting weekly to communicate over slack and teams about the formative assignments. Teaching ourselves about old school technology and implementing this into our machine design was a challenge for all of us with the difficulty of time differences within the team. However, throughout the coursework and reading I learnt about developing software and requirements through modelling, and case studies of similar occurrences. One area that was significant was software development cost estimation (Jorgensen and Shepperd, 2007) which informed me on costing and estimating implementation into our group project.

The lessons stated the importance of defining requirements as they determine the projects success rate and the development process (Stellman & Greene, 2005). This was furthered with learning the uses of Gerkin language to determine requirements in a simple layout (Rice et al., 2017). Implementing correct and deliberate requirements was instilled from the beginning of the module, this is to ensure the development is steady and concise.

The importance of estimation techniques was iterated on multiple occasions throughout the module, Ramasubbu & Kemerer (2019) emphasised the importance of tracking and managing risk as a critical tool for technical debt. Further areas of study confirmed the same importance towards estimation and determined its usefulness in software engineering project management.

The final areas looked at was future trends, Artificial intelligence being one of the most popular areas looking at tools such as chat GPT however other ideas such as open source was looked into (University of Essex, 2023).

## So What?

This module has given me an understanding of the complexity behind project management, especially within the software engineering field. The ease of failure within the industry is ever present and the need for a concise understanding of what it means to fail (Lehtinen et al, 2014) is imperative for the success in any project.

Although the basic principles of project management are universal, many aspects of software engineering project management go further than what would necessarily be seen throughout a standard project management role. The need for understanding Software development lifecycles was an important area investigated throughout the module as well as methodologies for development and managing development. All of these areas are not seen in other project management roles but are dominated by the software engineering environment.

I also learnt about the need from understanding, patience and industry standards when working with my team for the group assignments. Being included in a team in which the majority of members worked in different time zones and with different languages was a challenge. By implementing a weekly meeting, we were able to keep in contact and understand each other’s ideas. A difficulty faced when working in a team was the inability to work or learn to my full potential. As a slower learner I struggled to keep up and rather than working to support everyone’s learning the teams’ goals were to hand in the best work. Because of this although the work was completed to a professional standard, I was left feeling like I had not learnt as much as I could have from the assignments. This led to me being assigned jobs and roles I had worked on previously and being left to feel I could have had an opportunity to learn or challenge myself in other areas if given appropriate time and opportunities.

Overall, the module allowed me to learn about the importance of the mundane jobs within software development and software engineering particularly in the project management side. Planning and testing are but a couple of the important and effective tools used to determine a project’s success.

### Now What?

The information taught to me throughout this module has given me a fully rounded understanding of the pace and detail required in planning and understanding a projects requirements and risk assessments needed before throwing myself into the work. Because of the information taught to me throughout this module my future endeavours will be confident, precise, and more professional than previous attempts.

By implementing the skills and knowledge I have gained throughout the module I can determine if a project will be successful by the planning done ahead of development and ensure others in my team are also confident in the work they are completing. In future I will implement a software engineering project management framework and determine a solid foundation in the work I complete.

## References

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