CS5030 - Software Engineering Principles

Software Design, Modelling and Analysis

Individual Report

Matriculation Id - 220032472

Adopting Agile process, as a team, enabled us to comprehend on how important it was to be able to accommodate modifications depending on customer feedback, and the difficulties of coming up with a real-world solution to a problem statement. When working on this project, the idea of getting early feedback throughout the process and allowing for simultaneous adjustments had created an opportunity to combine many viewpoints and improve topic awareness in addition to new ways to approach problem-solving.

Brainstorming sessions at the beginning of the project allowed us to portray our ideas, and improved reasoning skill when trying to analyse a project from different perspectives. Being able to contribute to the analysis and provide feedback on the ideas put forward, helped in shaping the outcome of the understanding. Effective communication within the project group had helped towards unanimous approval of conclusions on any given topic.

In our brief role-based agile strategy, I had the opportunity to play the roles of client and developer, which helped me consider and ask questions from the viewpoint of the assigned role. These inquiries served to improve the system design by laying the groundwork for resolving any ambiguities in the knowledge of requirements.

In addition, I handled stand-up calls and identified team members' roadblocks in my capacity as the scrum master. As a team we discussed towards clearing those individuals blockers. I contributed towards helping the team in getting their doubts cleared, by adding my views on the issues that they faced. The team was welcoming to take in feedbacks and improve upon the segregated work. By explaining my understanding and the problems I was facing with respect to my assigned topic of work, I was able to get my doubts answered and receive helpful advice on how to get beyond my roadblocks.

I had dedicated time towards understanding the architectural and testing patterns used in software development, along with ethical considerations when it comes to building a software product. Had to look up at multiple resources to conclude good practises and standards rather than referring to single source. There were discrepancies when referring to multiple online web pages. A reliable source of information needed to be analysed and followed throughout the coursework to maintain the consistency of design. The reference books mentioned in the lecture slides were of a good help when analysing these patterns. I contributed my understanding towards constructing the system design and validating it against the reference that I used for my learning.

With respect to software modelling and analysis, I was convinced towards the end that a good understanding of the requirement, can save up time during a system development process, as there were many instances recorded by organizations that they had to redo a lot of development towards the end of the software lifecycle as their initial chosen architecture was not catering to most of the requirements. This was indicated to have costed companies a hefty sum of money. So, with a good design - considering all scenarios, the software can be developed and shipped to the end user in a smooth and clean manner. This information gave a good insight on the importance of this coursework and how it needs to be done with precision in the real-world applications.

Thanks to the university for the providing this opportunity to work on this group assignment and improve my skills as a team player.