

CPSC 3720 - Reflection Report

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Strengths and weaknesses of the agile process

Using the agile process has proven to be effective, thorough, and manageable during the creation of the Study Buddy Scheduling App. Compared to the waterfall process, the test-as-you-go characteristic of agile allows for quick fixes of bugs without having to revisit code that could have been written awhile ago. Sprint planning during agile development ensures that clear goals are set, issues and setbacks are documented, and next steps are included in the following sprint. Maintaining a product backlog clearly outlined the importance of each feature, and acted as a checklist for what to add to the web app. While the agile development process was extremely effective, it had some weaknesses that the waterfall process could make up for. While agile allows for freely changing requirements and code, waterfall ensures that once requirements are set, they are not altered. Using agile could allow for too many requirements to be created, and the ultimate goal of the web app could be lost. Another weakness of agile is code planning—there are no UMLs or pseudocode to go off of, while waterfall includes those in the design phase.

Expected vs. actual outcomes

The expected outcome was a fully functional web application that complied with all the expectations of the product backlog. The actual outcomes were fully compliant with the backlog, with the exception of steps 6-8 that, while optional, could have added more versatility and ease of navigation to the application.

AI use influence on requirements, design, coding, and testing

AI enabled a lot of learning especially in the area of utilizing new tools, such as PythonAnywhere. With instructions and a setup guide, this enabled us to learn and execute quicker. Regarding the code, there were only minor alterations made to it as Claude had produced most of the code. This contributed to us being able to push out the product faster. Requirements were created by ChatGPT based on the type of

application and needs required. When provided with background information, it created good criteria with sound logic as to why we should use it. Lastly, regarding testing, the only alterations were all the HTML files, where Claude provided incomplete code at the first round of generation. During the testing phase, ChatGPT was able to resolve the issues and generate tests that would ensure the website and login information loaded and worked properly.