CS-250 Software Development Lifecycle

Final Project: Retrospective

Southern New Hampshire University

**Sprint Review and Retrospective**

**Applying Roles in the Scrum-Agile Team**

Throughout the development of the SNHU Travel application, each role within the Scrum-Agile team played a significant part in ensuring the project’s success. The **Product Owner** acted as a liaison between the development team and the client, ensuring that the user stories were prioritized according to the client’s business needs. One specific example was when the Product Owner facilitated a mid-sprint adjustment to address a change in the client’s requirements. By re-prioritizing the product backlog, the team was able to shift focus without losing momentum, thus improving the delivery of features that aligned with SNHU Travel’s goals.

The Scrum Master played a crucial role in maintaining the flow of the project by organizing daily standups, removing obstacles, and ensuring adherence to the Scrum framework. For instance, the Scrum Master addressed integration issues with third-party APIs that had stalled development. By resolving these issues, the Scrum Master enabled the development team to maintain their velocity and stay on track with the sprint goals.

The Development Team members were responsible for translating the user stories into functional code. Their collaborative approach and cross-functional expertise enabled them to adapt quickly to changing priorities, particularly when the Product Owner requested last-minute modifications. The ability of each role to contribute effectively was key to the project's success, ensuring that all team members worked cohesively toward the sprint objectives.

**Completing User Stories**

A Scrum-Agile approach proved to be highly effective in bringing user stories to completion. By breaking down the project into sprints, the team was able to focus on specific user stories in manageable increments. This iterative process allowed the team to deliver working features at the end of each sprint, ensuring continuous feedback from the Product Owner and other stakeholders. For example, a user story related to the booking interface for the SNHU Travel application was completed during the second sprint. The development team collaborated on the design and implementation, while the Scrum Master ensured that any impediments, such as API integration delays, were resolved promptly. The iterative nature of Agile allowed for rapid feedback and adjustments, which ensured that the user stories were developed efficiently and to the satisfaction of the client.

**Handling Interruptions**

The Scrum-Agile approach proved particularly beneficial when the project was interrupted or changed direction. Midway through the project, the client introduced new requirements related to the payment processing feature. In a traditional Waterfall model, this would have caused significant delays as the team would have needed to revisit the design and planning phases. However, in Scrum, the team was able to adapt quickly by revisiting the sprint backlog and incorporating the new requirements into upcoming sprints. The ability to respond to change without derailing the project is one of the core strengths of Agile methodology. The team’s flexibility ensured that the project remained on schedule, despite the interruptions.

**Communication**

Effective communication was essential to the success of this project, and the Scrum-Agile framework encouraged frequent, open lines of communication between all team members. Daily standups were an important part of this process, allowing the team to provide updates, discuss challenges, and collaborate on solutions. For example, during one standup, the development team encountered a technical issue related to third-party API integration. By discussing this issue openly in the standup, the team was able to troubleshoot the problem collaboratively, ultimately resolving it within the same sprint.

Additionally, tools like Jira were used to track progress and keep the team informed of any changes to the product backlog or sprint goals. This transparency helped maintain a high level of collaboration and ensured that everyone was aligned on project priorities. Overall, the emphasis on communication in the Scrum framework fostered a collaborative environment where team members could effectively share ideas and resolve challenges.

**Organizational Tools**

The use of organizational tools such as Jira and GitHub were critical in managing the complexities of the project. Jira was particularly helpful in organizing the sprint backlog, tracking progress, and ensuring that all tasks were completed within the sprint timeframe. The use of **Scrum events** such as Sprint Planning, Daily Standups, and Sprint Reviews helped to keep the team focused and aligned on goals. These events provided a structured approach to planning, executing, and reviewing the work, ensuring that each sprint produced a working increment of the product.

GitHub, on the other hand, was invaluable in managing the codebase. The development team used GitHub to collaborate on code, review pull requests and ensure that the code was tested and integrated smoothly. The use of version control allowed the team to maintain a clean and organized codebase, reducing the risk of conflicts or errors.

**Evaluating the Agile Process**

The Scrum-Agile approach was highly effective for the SNHU Travel project, particularly in terms of adaptability and collaboration. One of the primary advantages of Agile was its ability to accommodate changes to the project scope without causing significant delays. The iterative nature of the process allowed the team to receive continuous feedback and adjust accordingly. However, one potential downside was the challenge of managing changing priorities, which occasionally led to a shift in focus that could disrupt the team’s workflow.

Overall, the benefits of the Agile process outweighed the challenges. The project was completed on time, and the client was satisfied with the final product. The flexibility, collaboration, and continuous feedback inherent in Agile made it the best approach for this project. Had the team used a Waterfall approach, it is likely that the client’s mid-project changes would have caused significant delays, making Scrum-Agile the more appropriate choice for the SNHU Travel development project.