CS 250 -11746-M01 Software Development Lifecycle 2024 C-4

7-1 Final project : Sprint Review and Retrospective

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1) Demonstrate how the various roles on your Scrum-Agile Team specifically contributed to the success of a project. Use specific examples from your experiences.

In the SNHU Travel project, the Scrum-Agile approach allowed each team member to contribute uniquely through their designated roles. As the Scrum Master, my role was to facilitate meetings, clear roadblocks, and ensure that the team remained focused on the sprint goals. For example, during Sprint 2, I noticed that the team was struggling with prioritizing tasks, which was affecting our progress. I stepped in to reorganize the backlog and facilitated a mid-sprint meeting to re-align everyone with the sprint objectives, which resulted in a more focused effort and timely completion of user stories.

The Product Owner played a crucial role in defining the user stories and ensuring that the team was working on features that aligned with SNHU Travel’s business needs. For instance, when a change request came in to add a new feature for flight booking, the Product Owner quickly re-prioritized the backlog and worked with the team to refine the user stories, ensuring that the new requirements were met without derailing the sprint.

The developers were at the heart of the project, responsible for turning user stories into working features. They collaborated closely with the Product Owner to understand the requirements and with the testers to ensure that the features were implemented correctly. For example, during Sprint 3, the developers tackled the complex task of integrating third-party APIs for flight bookings. They worked in pairs to code and review each other's work, ensuring high-quality output. Their collaboration and technical expertise were essential in delivering a robust and functional application.

Testers were also integral to the success of the project. They were responsible for validating that the developed features met the acceptance criteria and were free of defects. For example, after the developers completed the flight booking feature, the testers conducted rigorous testing, including both automated and manual tests. They identified several edge cases that had not been considered during development, which were promptly addressed by the developers. This iterative process of development and testing ensured that the final product was reliable and met the client’s expectations. By including the efforts of developers and testers, we get a complete picture of how each role within the Scrum-Agile team contributed to the success of the SNHU Travel project. The synergy between these roles, supported by the Scrum framework, was key to the project's success.

2) Describe how a Scrum-Agile approach to the software development life cycle (SDLC) helped user stories come to completion. Use specific examples from your experiences.

The Scrum-Agile approach provided a structured yet flexible framework that facilitated the completion of user stories in an iterative manner. Each sprint focused on delivering a potentially shippable product increment, which helped maintain momentum and allowed for frequent feedback. For example, during Sprint 1, we focused on user stories related to account creation and login functionality. The iterative nature of Scrum allowed us to deliver a basic version of these features, gather feedback, and make necessary adjustments in the subsequent sprints.

The use of time-boxed sprints ensured that the team was constantly working towards tangible goals, which made it easier to track progress and maintain a steady pace of development. By the end of each sprint, we had a working version of the application with completed user stories that could be reviewed by stakeholders. This approach not only increased transparency but also ensured that the product evolved in line with SNHU Travel's needs.

3) Describe how a Scrum-Agile approach supported project completion when the project was interrupted and changed direction. Use specific examples from your experiences.

Interruptions and changes in direction are common in software development, and the Scrum-Agile approach is well-suited to handle these challenges. During the SNHU Travel project, we faced an interruption when the client requested a major change to the trip-planning feature mid-sprint. Instead of derailing the entire project, we utilized the Scrum framework to re-assess the situation. The flexibility of Scrum allowed us to quickly pivot by conducting an impromptu sprint review with the Product Owner to discuss the new requirements. We then updated the sprint backlog and reallocated resources to address the change without compromising the overall project timeline. This adaptability was key in keeping the project on track and ensuring that the final product met the client’s expectations.

4) Demonstrate your ability to communicate effectively with your team by providing samples of your communication. Explain why your examples were effective in their context and how they encouraged collaboration among team members.

Effective communication was vital to the success of the SNHU Travel project, and the Scrum-Agile approach facilitated this through regular meetings and collaborative tools. Daily stand-ups, for example, were instrumental in keeping everyone on the same page. During these meetings, team members provided updates on their progress, discussed any challenges they were facing, and set their goals for the day. This consistent communication helped in identifying potential issues early and fostering a collaborative environment. Additionally, we used tools like Slack for instant messaging and JIRA for tracking tasks and progress. One particular instance of effective communication was during Sprint 3 when we were nearing the end of the sprint, and the development team encountered a technical challenge with integrating third-party APIs. By quickly escalating the issue during the daily stand-up, the team was able to brainstorm solutions together and resolve the problem before it impacted the sprint deadline. This example highlights how effective communication can prevent small issues from becoming significant roadblocks.

5) Evaluate the organizational tools and Scrum-Agile principles that helped your team be successful. Reference the Scrum events in relation to the effectiveness of the tools.

The use of organizational tools was critical in maintaining the structure and efficiency of the SNHU Travel project. JIRA was our primary tool for managing the sprint backlog, tracking progress, and assigning tasks. It allowed us to visualize the workflow through Kanban boards, making it easy to monitor the status of each user story and ensure that nothing fell through the cracks. This tool also enabled the Product Owner to prioritize tasks effectively and the Scrum Master to manage the team's workload.

Scrum events like sprint planning, daily stand-ups, sprint reviews, and retrospectives were also pivotal in keeping the team aligned and focused. During the sprint planning sessions, we broke down user stories into manageable tasks and estimated the effort required for each, which helped in setting realistic goals for the sprint. The retrospective meetings allowed the team to reflect on what went well and what could be improved, fostering a culture of continuous improvement.

6) Assess the effectiveness of the Scrum-Agile approach for a specific project. Address each of the following:

* Describe the pros and cons that the Scrum-Agile approach presented during the SNHU Travel project.

The Scrum-Agile approach presented several pros during the SNHU Travel project. The iterative development process allowed for continuous feedback and adjustments, which led to a product that closely aligned with the client’s needs. The regular sprint reviews provided opportunities to showcase progress and make necessary changes before moving too far down the development path. However, one con was that the constant need for adjustments sometimes led to scope creep, where additional features were requested mid-sprint, putting pressure on the team to meet deadlines.

* Determine whether or not a Scrum-Agile approach was the best approach for the SNHU Travel development project.

Given the nature of the SNHU Travel project, the Scrum-Agile approach was indeed the best choice. The project required frequent iterations, flexibility in handling changes, and constant communication with stakeholders, all of which are strengths of the Scrum framework. The ability to deliver increments of the product after each sprint ensured that the client could see tangible progress and provide feedback, ultimately leading to a more refined and successful final product.