CS-250-T5473 Software Development Lifecycle 23EW5

## **Sprint Review and Retrospective**

The roles that are associated with a Scrum-agile team for the SNHU Travel Project are Scrum Master, Product Owner, Testers, and Developers. Each role contributed to the success of the SNHU Travel Project.

The Scrum Master contributed to the SNHU Travel project by executing Scrum events such as Sprint Planning, Daily Scrums, Backlog Refinement, Sprint Reviews and Sprint Retrospectives. Sprint Planning prepared an agenda for the whole SNHU Travel project team. The agenda that was prepared helped organize and prioritize the most valuable user stories for sprints and provided a project timeline. The short and focused Daily scrum meetings that were scheduled and overseen by the Scrum Master provided extra clarity, simplification and organization of each team member's project tasks and helped team cross-collaboration. Backlog Refinement allowed change and updates for the new SNHU Travel project requirements and user stories. In the middle of the development of the SNHU Travel Project client requirements were changed, and because of the agile process, the Scrum Master was able to update the project Backlog with the new project requirements and tasks without having to push-back the SNHU Travel Project deadlines or design a whole new entire development plan. Finally, the Sprint Reviews and Retrospectives allowed time at the end of each sprint to evaluate completed work,

stakeholder and Product Owner feedback, team thoughts and experiences and future project projections, and gave the team time to celebrate achievements.

The Product Owner contributed to the SNHU Travel Project by conducting meetings with users and stakeholders. By keeping an agile planning process in mind and by using the "Five Why's" when conducting interviews, the Project Owner was able to determine the correct requirements and user stories with enough detail to develop the SNHU Travel Project according to the clients needs. The user stories that the Product Owner gathered were independent, negotiable, valuable, estimable, small, and testable. The Product Owner created five different user stories for the SNHU Travel software that described components involving top vacation list details, and customizable vacation package options including destination types and budgeting. When the project changed direction the Product Owner was able to compromise and work with the client and communicate the new requirements and project plans to the team. The occurrence is an example of the importance of having a Product Owner on an agile-development team to conduct many meetings to ensure that clients' needs are being met throughout the whole Software Development Life Cycle (SDLC).

Testers contributed to the SNHU Travel Project by testing code and developing test cases to help development of the SNHU Travel website. By testing the program using user stories that the Product Owner collected in meetings with the client, stakeholders and SNHU Travel customers, testers were able to ensure that the SNHU Travel software ran correctly, and that the user interface was optimal. During a testing phase of the SNHU Travel Project, the tester used elements of the user stories along with past and current experiences of customers to create three test cases about a budget filter, top travel destinations, and a vacation type search. After

analyzing and testing, the tester was also able to gather more information about what user stories are needed to describe every possible website interaction. The tester created a list of more information that was needed to create more and better test cases and sent that list in a letter to the Product Owner to gather the information needed in the next meetings.

The developers contributed to the SNHU Travel Project by planning, designing, and coding the software for the SNHU Travel website. There were many important steps developers had to follow to create software that was executable and that met the clients' needs. One of the biggest duties as a software developer is to make the correct requests to other team members such as testers and the Product Owner to make sure that the code that is being developed will meet all requirements. When the client changed requirements about the project, the developer had to request more information on how to develop the new software according to the changes. The developer wrote a letter to the Product Owner to gather as much information as possible about the new requirements and desired website structure and did not miss any details.

A Scrum-agile approach to the SDLC of the SNHU Travel project helped complete each of the user stories. The Scum-agile approach helped gather information for the user stories, implement user stories for development and allowed for flexibility and an update of user stories later in the SDLC. A Scrum-agile approach was used to gather information for user stories through frequent meetings with clients and stakeholders. Having frequent meetings in a SDLC is an agile approach because any change that needs to be made by the client or stakeholders will be communicated quickly and effectively. The agile process of conducting numerous meetings and relaying updated information to the team frequently allowed for updates in user stories throughout any phase of the SDLC.

There were many ways that the Scrum- agile approach supported project completion when the project was interrupted and changed direction. The project wouldn't have been able to change direction if frequent meetings weren't held with the client and stakeholders about the project. If a waterfall approach had been used for the SDLC then the changes wouldn't have been as easy to make the changes compared to an agile- approach. The Scrum approach made communication between team members about the project easier and more efficient. The Scrum approach also organized project tasks and at the same time allowed for any requirement or project modifications throughout any phase of the SDLC. One specific example from the SNHU Travel Project is when the developer was able to communicate with the Product Owner and testers about the change to Wellness and Detox vacation destinations only. When the changes were made the developers were able to communicate and make changes with little to no problems.

The ability to communicate effectively with team members is strong with a Scrum-agile approach. At any moment team members are allowed and encouraged to communicate with other team members. Scrum events promote communication and collaboration. During the SDLC of the SNHU Travel project there were many moments when team members had to effectively communicate with each other, especially when the direction of the project changed. When the client and stakeholders changed requirements, the changes were communicated to the Product Owner and Scrum master through meetings. The information was then passed down to the developers and testers. The developers and testers also spent time writing letters and communicating about the changes.

An organizational tool that helped the SNHU Travel Scrum-agile team be successful is splitting up members into different teams. Assigning scrum roles played one of the biggest parts of the project's success. By assigning the four separate scrum roles each team member and members were able to focus their attention on a specific part of the project and then come together and piece a whole project together effectively. Scrum meetings were a big help with project organization because it gave time for all the team members to collaborate and communicate project requirements, project status, and accomplishments. Scrum sprints helped the planning process and helped track the progress of the project.

There were some cons about the Scrum-agile approach for the SNHU Travel project. The agile part of the Scrum- agile approach was necessary, although maybe some engineers may be able to make an argument that the project was small enough to be able to use a waterfall approach and still produce the same product at the same if not a quicker rate of production. The project requirements and project design only changed direction one time and the changes were not significant enough to harm a SDLC that was planned with a waterfall approach for the same project. A waterfall approach can be a lot quicker of a development process from start to finish than a Scrum-agile approach based on the project requirements and size of the project.

Despite some of the troubles of using a Scrum- agile approach for the SNHU Travel project, the approach was the best choice. At the end of the project an argument could have been made that a waterfall approach could have been a better choice but that is only because now the team knows that the project development went smoothly and only changed directions one time. But establishing an agile approach at the beginning of the SDLC ensured that at any point of the process the team would have been able to adapt to any changes necessary, which is something

that a waterfall approach doesn't offer. When the project did change direction, there are many approaches that could have handled the subtle project changes, but the agile approach still was the best approach for the job. Using the Scrum-agile approach not only prepared the team for any development obstacles but also did a better job of organizing and collecting user requirements throughout the whole SDLC.