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CS 250: Software Development Lifecycle

Southern New Hampshire University

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CS250 Final Project: Sprint Review and Retrospective

**Demonstrate how the various roles on your Scrum-agile Team specifically contributed to the success of the SNHU Travel project. Be sure to use specific examples from your experiences.**

In the agile framework, each team member plays a crucial role in the success of the team. The scrum master facilitates each scrum event and ensures the team is on track to meet their goals and sprint commitments. These agile ceremonies include daily standups, sprint retrospectives, and sprint planning. In the SNHU Travel project, the scrum master aided in the team’s success by facilitating these meetings through the software development lifecycle.

The product owner also plays a crucial role on a scrum team. Their responsibilities include interfacing with stakeholders, defining the product backlog, aligning the project with business goals, and writing acceptance criteria for user stories. In the SNHU Travel project, the product owner met with stakeholders to better understand the business goals and requirements for the project. After meeting with the stakeholders, the product owner developed user stories to bring to the team in backlog refinement, and eventually develop.

Testers play a critical role in ensuring the quality of the product by identifying and addressing issues before the application is in production. In the waterfall methodology, testing is done after the development process. In the agile framework, testing is done throughout the software development lifecycle. The tester will also write test cases to ensure the new development meets the acceptance criteria defined in the ticket. They also participate in all scrum ceremonies, including daily standups, sprint retrospectives, and backlog refinement meetings. In the SNHU Travel project, the tester created initial test cases for the new development of the SNHU Travel site, and revised the initial test cases after receiving additional wireframes.

The development team is the final set of members in a scrum team. The development team is responsible for developing the application through the work of user stories defined by the product owner. Unlike the waterfall method, development is done in smaller chunks, and created through multiple sprint iterations. In the SNHU Travel project, the developer modified the existing code for the SNHU Travel project, after the requirements for the project had been changed by the product owner.

**Describe how a Scrum-agile approach to the SDLC helped each of the user stories come to completion. Be sure to use specific examples from your experiences.**

Where waterfall development is unidirectional, agile is an iterative framework, making incremental changes towards the project’s completion. Doing so allows for many benefits, including consistent check-ins with the project’s stakeholders. This also allows for any changes in the project’s scope to be accounted for much easier than in a waterfall approach. The team is also more aware of any potential blockers impeding other team members, as scrum is much more collaborative than the waterfall method. In the SNHU Travel project, these attributes benefitted the team in a few ways. When creating test cases, the tester was made aware before testing had begun that there were changes to the project’s scope. This allowed the test cases to be refined before testing began. As the project goals changed through development, less development work needed to be redone, as the project manager had properly ordered the importance of each user story. By doing so, it allowed the development of user stories still being refined to be saved for last.

**Describe how a Scrum-agile approach supported project completion when the project was interrupted and changed direction. Be sure to use specific examples from your experiences.**

One of the main benefits of scrum is its adaptability. When there are changes in the product’s direction or other blockers, it is easily communicated in daily standup meetings. In a perfect world, the product owner has prioritized stories in such a way that user stories that are still being defined or have a risk of change will be set in a lower priority than user stories that are ready to be developed. In the SNHU Travel project, both the developer and the tester quickly adapted to changes in the project’s direction. After there were changes that had been made from the stakeholders, the tester and developer quickly made these requested changes without having to redo too much work.

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

In module six, our team communicated through email to decide which role each member would take. As nobody had taken the role of scrum master yet, I decided to take that role. In our module discussion, I used a discussion post to iterate some of the major changes that the team should be expecting through our transition from a waterfall model to the agile framework. This communication was effective because it was collaborative. If any team members had questions about the new scrum ceremonies they would be a part of, they could respond to the post and another team member could respond. It was also in a mutually accessible location. This allowed for all team members to be aware of the upcoming changes.

**Evaluate the organizational tools and Scrum-agile principles that helped your team be successful. Be sure to reference the Scrum events in relation to the effectiveness of the tools.**

The product backlog is a great organizational tool that helped in the team's success. This allowed organization and created a product roadmap for the team. Other collaborative tools like Jira or Rally can be beneficial, as they take some of the principals of the agile framework and put them in a central location that is easy to manage. Software like Jira or Rally have the ability to track work on a kanban board, create a product backlog, and create user stories that include acceptance criteria, notes, descriptions, and other useful information.

**Assess the effectiveness of the Scrum-agile approach for the SNHU Travel project. Describe the pros and cons that the Scrum-agile approach presented during the project. Determine whether or not a Scrum-agile approach was the best approach for the SNHU Travel development project.**

The SNHU Travel project benefited greatly from using an agile approach. Compared to the waterfall method, the team was able to quickly adapt to changes in requirements by the product owner and stakeholders. Through the use of continuous improvement, they were able to iterate through development changes to meet the product goal. Some of the cons included the team getting off topic in daily standups. This led to the scrum master having to encourage the use of sidebars. In comparison to the waterfall method, scrum was the better approach for this project. Because of the changing project goals, the waterfall methodology would not have been able to quickly adapt to those changes.