**Sprint Review and Retrospective**

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CS250: Software Development Lifecycle

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February 25, 2024

Working with everyone to deliver the SNHU travel website using agile methodologies has been an enlightening experience. Each role is integral to the development process and contributes in unique ways, supporting their fellow team members. The Product manager, Scrum Master, Developers, and Testers are each tasked with handling different aspects of the company's workload. The Product Manager interfaces with the stakeholders and communicates their needs to the development team. The Scrum Master acts as a leader servant and supports the development team in their day to day operations by facilitating open communication, personal growth, and self reflection. The development team and testers are tasked with delivering the product in an iterative manner, pivoting when needed based on feedback from the stakeholders and interested parties. When each role executes the functions of their position well, the end result is a highly efficient team that can take on a significant workload while delivering products on time and that meet the ever changing needs of the client.

The Product Manager is the first line of defense for the team. They interface with the client and users to understand their needs. The Product manager will often meet with the client and customers and ask probing questions to understand what it is they need from the product. When working for SNHU Travel the product manager met with customers to poll them on their wants and needs from the travel website. In response the customers provided the Product Manager with key insights regarding features they would want to see implemented. Additionally, they provided solid reasoning and context that helped the team to understand why they desired these features. This context was relevant later when developing user stories. The Product Manager also maintains the backlog of items (products) that are currently being worked on. When time frames must be adjusted the product manager is the one to run triage and decide what gets pushed back or moved forward in order to meet required deadlines. When SNHU Travel asked us to make a change midway through development the product manager was the one to shift around the backlog so that the team could allocate time to make the necessary changes. This ability to pivot is due to the agile methodology. Since work happens in small manageable chunks there is time to make changes when new information comes in.

The Scrum Master has an important role in the overall process as well. They are tasked with holding the Daily Scrum, making sure the needs and concerns of the team are met, and helping them to find ways to improve by engaging with them when needed. The Scrum Master does not directly manage the development team but they help them to work collaboratively. If they see a chance to improve, the Scrum Master can help to guide the team in a direction that would benefit them both personally and professionally. As a Scrum Master I was in charge of putting together the team agile team charter initially. This is also a key role of the Scrum Master. Knowing the strengths and weaknesses of the team members is important to building strong teams.

The developers and testers are the heart of the Scrum Team. Developers are in charge of working within the sprint time frame to complete user stories. They do this by collaborating with the team and taking responsibility for their workload and other tasks. Developers do not have a strict hierarchical structure and are expected to work within a team context. Ideally, developers should support each other and help their peers when possible. The team is strongest when they are growing together and helping when needed, but each individual should be capable enough on their own as well. As a developer I was tasked with implementing user stories in production. A user story is a feature of a product that has been contextualized. One of the user stories I was asked to complete for SNHU Travel was creating a “Top List” section for relevant vacation destinations. User stories should follow a format that reads “As a \_\_\_\_\_, I want to \_\_\_\_\_, So that I can \_\_\_\_\_.”, the purpose of this is to put the needs of the user into context. This format lets the developers know who needs the feature, what they want from the feature, and most importantly why they want this feature. The why is important for both the developers and the testers because it can help the team to spot edge cases. When working on each user story an agile approach was integral to seeing the user story through to completion. User stories came from the information passed down from the product manager and were completed based on order of importance over the sprint cycles. When SNHU Travel needed to make changes based on new travel data, my team was able to pivot and make adjustments to the user stories based on the new data. Subsequently, the team followed up by making adjustments to the product after the Product Manager shifted around the backlog items.

Communication was critical to delivering the product on time and with the features required by the users and client. The team communicated with each other at different times to gather additional information and gain new insights. One of the first communications was to the Product Manager. I reached out to her as a developer and asked for clarifying details regarding the clients changing needs. Some questions asked are as follows:

1. What are their top detox and wellness packages?
2. How many should be displayed? Has the number changed?
3. What color scheme best reflects the company? (This can be a logo or just a relaxing theme)
4. How long should these new descriptions be? 1-2 lines or a full paragraph?

This information was effective in helping me to learn more about the changing requirements of SNHU Travel. Without answers to these questions I would have had to make assumptions which could have added additional development time and testing to the process.

Scrum events and organizational tools played a significant role in helping the team deliver. In the beginning we first learned about Scrum Events such as Daily Scrum. This daily meeting was key to bringing the team together to communicate their current tasks, previous tasks, and hindrances. As the team is required to work as a unit without a manager directly over them at all times, they had to pull together as a team. The Daily Scrum really helped to open up dialogue for the team. Sprint planning was also a critical event throughout this process. Since the team only had about five weeks to complete the website for SNHU Travel, sprints had to be planned out meticulously in order to meet the deadline. Scrum Events help the team to work collaboratively and process all of the information that comes their way. One tool that the team was introduced to was Azure Boards. They were able to use Azure Boards as a collaboration tool to highlight the Daily Scrum notes and share their tasks, hindrances, and questions.

The overall effectiveness of the Scrum-agile approach cannot be understated. The ability to break down large tasks into smaller more manageable user stories that can be completed over many sprints is powerful. At the end of each sprint there is opportunity for refinement after the teams and stakeholders review the current sprint output. This adds a layer of redundancy where each iteration is reviewed and given a chance to be refined as needed. If the team did not implement the Scrum-agile methodologies while working on the SNHU Travel website there may not have been a chance to meet the clients changing needs. The agile approach was definitely the best approach for the SNHU Travel development project.