7-1 Final Project

CS 250 Software Development Lifecycle

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Throughout the last 7 weeks, I have had the opportunity to learn about each role within a Scrum team and conduct an assignment for that position. The Scrum team consists of a Product Owner, Scrum Master, Developer, and a Tester. Each member of the team has an important part to play in order for the team to produce a quality product. Every member will need to know each other’s roles and to put trust in each other to do their part. In Agile, every team member needs to communicate what is needed to conduct their job efficiently and effectively.

**Scrum-agile Roles and SNHU Travel Team**

The **Scrum Master** is a crucial role within the Scrum-agile team. I see the Scrum Master as the foundation or backbone of the team. The Scrum Master is the facilitator and collaborator for the entire team. They are the coaches, middlemen, and decision makers on the day-to-day processes. In the SNHU Travel project, the Scrum Master had a responsibility to collaborate with the team through daily scrum events. As the Scrum Master, I created a team charter that explained key elements for the product that included team roles, project risks, a mission statement, and vital information such as deadlines, communication guidelines, and team goals. During the SNHU Travel project, the team attended a daily scrum meeting that was facilitated by the Scrum Master, and three important questions introduced as the foundation of the meeting.

1. What did you accomplish from the last meeting?
2. What are you working on today to accomplish the Sprint Goal?
3. Is there anything impeding you to conduct the job efficiently?

Each member had an opportunity to elaborate on these questions. This gave the Scrum Master an idea of what resources were needed for the team to complete their job and create a high-quality product. Between the sprint planning, sprint retrospective, the backlog grooming, and the daily scrum meetings, the team can exchange vital information to ensure the team goals are met. Afterwards a the Scrum Master will facilitate a Sprint retrospective to gather information on what can be done better and what the team should stay away from.

The **Product Owner** is the spokesperson for the company. In the SNHU Travel project, the product owner is the starting point for the project. As the Product Owner, I was responsible to collaborate with the client/customers to collect all the requirements for the product and relay them to the team. The Product Owner is the final reviewer and a decision maker through each iteration. It was my responsibility to sit down and develop a backlog and prioritize each task for the Developer Team. I had to make user stories that were clear and precise to eliminate any confusion or miscommunication, for instance which features were required and the expected results of that feature, and their priority. I am accountable for all aspects of the project and responsible for the products success but having trust in your team to make a quality product. When you have a top-notch scrum team, the Product Owner can rely on the Scrum Master and the Development Team to conduct the day-to-day business and produce progress reports that can be relayed to the stakeholders.

The **Tester** in the scrum team is an essential part of the agile process. They help design and execute a testing process that will verify whether the code that that is to be created can run without error and present any risks that may be presented during Sprint planning and throughout each iteration. It is important that the tester collaborates with the developing team to ensure that every team member understands each test and bring up any potential risks that will need to be corrected. As a tester for the SNHU Travel team, it was my responsibility to create test cases from the user stories presented by the Product Owner. I had to ensure the requirements within the user stories can run without error. If there needed to be more clarification, it was important to reach out to the Product owner, or Scum Master to obtain specifications from the client. For example, I needed more clarification on how much the user would like to spend on the vacation packages and which options they would like to see in their profiles. I sent an email to the Product Owner for more clarification. User stories are a great resource within the agile process. It points the developing team and testers in a direction to complete a product accurately. Communication is a key element during the testing development stages and tests are created throughout all stages of the development process.

Lastly, the **Developer** is another role that is a key element in the agile process. Unlike the traditional way where a Developer will design the code in one large iteration. They normally don’t work as a team and don’t do small iterations. In agile, the Developer will break up the tasks and have many iterations. This way they can write and test the software while working on any roadblocks or changes that may occur. The Developing team has more responsibility than just writing code. They may be responsible for estimating, planning, and quality assurance. In any role, communication is very important and the collaboration with the other team members is vital to the products success. (Cobbs, 2021). In the SNHU Travel Project, I worked as a developer and experienced a change in the requirements obtained by the clients. The Product Owner notified me with the changes but needed more clarification. I had to send an email to the Product Owner for more clarification on those requirements. I needed to know specifics such as banner size, picture sizes, and background colors of the slides being created. I also worked with the testing team and had them start working on the application test for the new requirements by the client. The Developers will work hand in hand with the testers to ensure the code is correct and the deadline is reached.

**Scrum-agile Approach**

The Software Development Life Cycle (SDLC) is the process to design, develop, and test high quality software. It will describe all that is included within a project from the start to end (Cobb, 20515. In our scenario for the SNHU Travel Agency, the scrum-agile approach was the best choice as there was already a foundation from the company’s website. The project was essentially a makeover and already had some data. The scrum-agile approach helped with the SDLC due to its adaptability approach and being flexible for the changes being requested by the client. For SNHU Travel, we were able to execute the top five destinations from the user stories on software that was already implemented. The scrum-agile approach allowed the team to move directions when the client requested travel packages that advertised wellness and detox destinations. With the agile approach, this allowed the team to move forward without having to start the project over as you may see in the waterfall method. Using the waterfall method may have caused the team to miss their deadline.

**Effective Communication Samples**

Throughout the project, each role needed further clarification on the product being created to ensure the client requirements were implemented appropriately. The agile team effectively communicated with each other throughout the project and in turn a quality product was created. As the Product Owner I met with the Scrum Master, and Client of the SNHU Travel Agency and gathered information to prioritize the requirements to create a backlog. With this, I was able to use this information to develop user stories that will help the Developing team. I can see how useful it is to break down and prioritize the entire project.

As the Scrum Master, utilizing a charter can inform the entire team of what needs to be accomplished by which member of the team and how. It’s a great tool that can be easily adjusted as requirements change and allows the team to be more flexible. I can see it also useful for the team to have a set of guidelines for working as a team.

As the Tester, I was able to gather the appropriate information from the Product Owner and Developing team to create test cases. I can see the struggle a tester may experience along with the Developer as requirements may be changed by the client. I had sent an email to the Product Owner to clarify a few requirements as I saw a potential risk in the test cases.

As the Developer, I had created a sample slide for the client with the top five detox and wellness destinations. There was concern at first on the requirements and what was needed, such as picture size, banner size, etc. A quick email to the Product Owner would have rectified the questions as the Product Owner and the client were in close contact with each other. In some circumstances, the Developing Team will be in direct contact with the client for specific requirements.

Below is an example of an effective communication method by each role on the team. Each form of communication, whether it be by email, product backlog, or by a charter, is an effective way to communicate with another team member besides using a face-to-face approach. The scrum-agile approach is best applied with the implementation of strong communication and collaboration.

**Backlog**: Created by Product Owner

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**User Story**: Created by Product Owner

![Graphical user interface, text, application, email

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**Team Charter**: Created by Scrum Master

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**Test Case**: Created by Tester

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**Email Communication**: Created by Developer

![Text, letter, email

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**Organizational Tools and Scrum-agile Principles**

In the SNHU Travel project, our team’s success was due to the use of user stories and the product backlog that was created by the Product Owner. The information provided within those documents created a foundation for the Developing team. The user stories were specifically useful as it broke down the project and made it seem less daunting. Even with a change in direction, the team was able to overcome those changes. This leads me into the scrum-agile principle being implemented. The principle that allowed the team to be most successful was being adaptive to change. In agile, adapting to requirement changes is a key element of creating a quality product. The team will need to be flexible for the flow to be continuous, so no effort is being lost. In the SNHU Travel project, the directional change for the top five destinations remained successful due to the Developing team being adaptable with implementing wellness and detox packages.

**Scrum-agile: Pros and Cons**

For the SNHU Travel project, the biggest pro was the team’s flexibility. In the agile methodology, being flexible is an important practice to implement. For the team to be able to change the direction of the product and continue to remain on time was key for the project’s success. The con in this project was with the change in requirements by the client. It set the team back slightly and may have created a little more work, but in agile, these setbacks are expected and is where Sprint planning comes into effect. If the waterfall method was being used, the team may have had to start the project over and extra time may have been lost. The waterfall method isn’t adaptable like the scrum-agile method, and you aren’t able to go back in previous development steps as you would be able to in the scrum-agile method. For the SNHU Travel project, the scrum-agile approach is still the best approach to use due to the team being flexible and adaptable to changes without effecting the teams progress and still meeting the team’s goals and deadlines. I can understand why teams use this method as it implements teamwork, better collaboration, and communication within a company.

References

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