7-1 Final Project Submission

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Throughout the course of our project developing a new site for the SNHU travel website, we utilized a Scrum-Agile platform. This platform utilized several different roles that are all accountable to each other to effectively meet the deadlines and goals of the project. These roles included the Scrum Master, the Product Owner, Developers, and Testers.

The role of the Scum Master is the facilitator of the project. It is essentially their responsibility to ensure that the other members of the team fully understand the workings and philosophy of the Scrum-Agile process. The Scrum Master is the leader of activities such as the daily scrum and sprint reviews, and in some cases can also act as a mentor to the rest of the Scrum-Agile team. It is their responsibility to recognize the strengths and weaknesses of each member of the team and to adjust the project accordingly. It is also the responsibility of the Scrum Master to occasionally allow their team members to fail in their tasks or responsibilities, and then guide them in a way to avoid those hang ups in the future. Though there are no small roles, the Scrum Master should ideally be the most senior and experienced member of the team.

As a Scrum Master, I began by assembling the Product Owner and the rest of the development team for an initial review, where we discussed the parameters of the project and what was expected of the final product. After that, we conducted daily 15-minute stand up meetings or “daily scrums,” in which each member of the team was asked to discuss what they spent the previous day working on, what problems they were encountering, how the fixed/intended to fix those problems, and finally what they intended to work on that day. These stand-ups gave the entire team an opportunity to collaborate, and in some cases where they were able to help each other with whatever task was being handled. These stand-up meetings also kept each member of the team accountable to the other team members. Finally, the team reviews the backlog together, which are tasks still needing to be completed. Depending on the state of the project, the team would then discuss which tasks were more important than others, which should be moved up or moved down in priority etc. As Scrum Master, it was my duty to facilitate these meetings and to ensure that all team members were working effectively not only on their tasks, but also working effectively with their teammates.

Next is the role of Product Owner. Primarily, the Product Owner acts as an intermediary between the end user/executives and the rest of the agile team. This may seem like a smaller role, but its importance cannot be understated. Primarily, their role is to determine the requirements and expectations of the end user/executives, and then communicate those requirements back to the rest of the development team. A Product Owner must possess excellent written and verbal communication skills. My first task as Product Owner was to conduct interviews with the end users to determine what exactly they are looking for in the product. A lot of times, people are either unsure of what they want or cannot communicate effectively what they expect the result to be capable of. It is my job as the Product Owner to ask clarifying questions, as well as to communicate what is in the realm of possibility. Sometimes people may ask for things which are impossible to complete because of time, money, technology etc. After these initial interviews, it is the responsibility of the Product Owner to then communicate these requirements to the agile team through product backlogs and user stories.

User stories and backlogs are the most important documents involved in the Scrum-Agile process, as these documents communicate the requirements of the project to the rest of the Agile team. To create a backlog, the Product Owner begins by creating a simple graph in which each requirement is given a User Story ID, a priority level, and a size. The priority level is used to determine which requirements are most important to the function of the project so that tasks may be worked on accordingly. The size is used simply to visualize how long that requirement should take to be completed. The backlog also will briefly describe the requirement and is usually structured something like “As a(n) <type of user>, I want to <perform a task> so that I can <achieve some goal>”. This type of structure and documentation is important to the creation of the user story. When creating the user story, the Product Owner must take that initial sentence used in the backlog, and then elaborate on it. The user story contains all the same information as the backlog, but also includes a completely fleshed out User Story Value Statement, as well as an Acceptance Criteria, which lays out in detail exactly what exactly is required in meeting that part of the project.

A Scrum-Agile approach ensures that the user stories and backlogs are completed effectively as the very essence of these documents relies on teamwork and communication. The Product Owner is constantly in communication with the end users and executives, and these user stories and backlogs are completely dynamic documents, meaning they can and will change throughout the development process. As the Product Owner, I was responsible for facilitating these changes in the following ways. The Product Owner communicates with the end user, the requirements of the product will change. It is then the responsibility of the Product Owner to reflect these changes within the backlogs and user stories, and to communicate them back to the developers and testers. This ensures that the product is in a constant state of development and testing throughout the entire process. This can only be done effectively though the Scrum-Agile approach.

The next role in the Scrum-Agile framework which I assumed the role of is the Tester. Testers are important because they are the members of the team who ensure that the software written by the developers works properly. The main method for ensuring the development team is creating functional software is through the creation of test cases. Test cases are created from the Acceptance Criteria outlined in the user stories and are meant to guide the developers in the creation of the software. Test cases are created by outlining specific inputs from the user’s end, and then also outlining what is to be expected from that action. For instance, if the user clicks on a button that says “submit”, then the user should expect whatever information was just shared to be saved and submitted etc. This is done to ensure that the user stories are being fulfilled correctly and that the user is given a functional piece of software that works intuitively and without much effort.

Testers should also have excellent written and verbal communication skills, as they will likely be in contact with the Product Owner throughout most of the project. For instance, when I was assuming the role of Tester during our work creating the website for SNHU travel, one section of the project required us to communicate with the Product Owner to ask clarifying questions about the user stories, to ensure the best possible test cases were being created. This communication between the tester and the product owner should look something like this:

To: (Product Owner)

Subject: User Story Clarification

Dear (Product Owner),

The team and I were just going over the user stories provided and are beginning development shortly. In the meantime, I was hoping that I could get some clarification in terms of what the user is expecting. Some of the details in the acceptance criteria are a little fuzzy. I was hoping maybe we could get some kind of visualization to better understand the acceptance criteria. For instance, what type of layout are we looking for here? Where does the user expect things like dialogue boxes/search bars to be present within the site? Thank you for your time and hoping to hear back from you soon.

-Ryan (Tester)

This type of communication was effective and encouraged collaboration between me and the Product Owner, because it gives us both a chance not only communicate about aspects of the project further, but also because it ensures that the best possible product is being created the end users’ specifications. Since the product owner should have the best idea of what the end user is expecting, it is best to communicate with them directly in this specific matter.

The final member of the Scrum-Agile team is the Developer. The developer is another important member of the team because they are the ones who are responsible for creating the deliverable product to the end user. The developer is responsible for completing the user stories and test cases, and ensuring the software they are creating fulfills the requirements of the project.

In my opinion from assuming the role of a developer during the SHNU travel website project, it seems that the developer must be the most flexible of the entire team, as they likely must deal with constant changes to the requirements from the Product Owner and the Testers. During the project there was an instance where the developer had to adjust to a change that came from the product owner. What happened was the end user at SNHU travel relayed to the Product Owner that they wanted the website to focus strictly on well-being and detox travel rather than general tourist travel. While the bulk of the product stayed the same, we still must rewrite and reconsider the user stories and test cases to ensure the correct requirements were fulfilled. As the Developer, it was then my job to review and edit the code to make sure it reflected the requirements of the user story.

This approach to changing requirements could only be fulfilled through a Scrum-Agile approach. Under the Waterfall method, there is no room for changing requirements without destroying the integrity of the problem. Aspects of the project are addressed one at a time during a Waterfall method. In a Scrum-Agile framework, the entirety of the project is constantly under scrutiny, meaning that short notice changes like the one mentioned above can be done without scrapping the entire project and starting from the beginning. The Product Owner is in constant contact with the end users, meaning that as changes come up, they can quickly be implemented. In Waterfall, even a small change could only be brought upon at the end of the project and become disastrous. These organizational tools and Scrum-Agile principles are what created an effective, collaborative environment that ensured a high-quality product was delivered at the end of the cycle.