**Final Project**

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Software Development Lifecycle

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For this sprint for the project for SNHU Travel, the different members of the team were the project owner, the Scrum master, the developer, and the tester. Each team member had specific responsibilities and was essential to the successful completion of the Sprint. The project owner was the go between from the stakeholder to the rest of the team. (Magnussen, 2023) “Within the Scrum team, the PO plays a pivotal role in maximizing the product's value by engaging stakeholders, managing customer requirements, and ensuring overall product success.” They scheduled a meeting with the stakeholder and went over exactly what the stakeholder was looking for. They then put those requirements into user stories. From the user stories, the backlog was created. These are the tasks that needed to be completed in order for the project to be fully completed. The project owner was also responsible for managing that backlog. Each backlog task needed to be small enough for the team to handle it during one sprint. If it was not, the project owner broke that into smaller tasks. The project owner also prioritized these tasks. If any new items were brought up and as tasks were completed, the project owner made sure that those were reflected in the backlog. From my experience, if the project backlog is not up to date, that can make it very difficult to run an effective Sprint as tasks may have to change in the middle of the Sprint. Also, if the stakeholders’ needs are not communicated properly, the final result may not match what the stakeholder was looking for at all.

The scrum master is comparable to a team coach. They are the ones to provide feedback to the team members. They also are the ones to motivate them and to train them in the scrum methodology if there are pieces that the team does not understand. One of the scrum master’s main duties wass to organize the scrum events. The first major event was Sprint planning. The scrum master facilitated the meeting where the team determined which of the backlog tasks would be addressed in this Sprint. (Pasuksmit,2023) “The selected issues typically (1) align with the sprint goal and (2) are ready to be worked on (i.e., small, detailed, and their accumulated size fits the sprint capacity.” The team also used estimating practice called planning poker to determine what time blocks each task would take. In my experience, if the sprint planning is done poorly, there may be too many tasks or too little tasks to get accomplished in one Sprint. Although tasks can be carried over to the next sprint, this should not happen often. I also facilitated the daily stand-up huddles. These have been effective as having the team continue to stand encourages a quick meeting. Each member went over what they did the day before, what they planned to do the current day, and anything that was impeding their progress. These were extremely helpful as they kept the whole team on the same page and kept them accountable for their responsibilities. This sprint retrospective is another important part that the scrum master completed to make sure that each sprint is successful. Looking at the success and failures of the current sprint enables the team to adjust for the next sprint.

The developers were responsible for completing the backlog tasks. They made sure to review the user story to understand exactly what was expected. They then wrote the code for the travel website. They were also responsible for making sure that our Kanban board was kept up to date. The Kanban board was a physical representation of the sprint. It had post it notes that indicated what tasks had not been started, what were in process and what ones were completed. As a task was assigned to a developer, they were responsible for moving that post it note. The developers had to communicate with each other and the scrum master if they encountered hurdles so that those hurdles were overcome quicker. The developers were part of the sprint planning session and the sprint review where we showed the stakeholder the done tasks. This did not mean that the project was complete, only that it met our definition of complete. From my experience, it is important to have the stakeholder view the work that the developers have done to ensure that everything is on the right track.

The last member of our team was the tester. The tester was involved right from the start. When the product owner got the user stories, the tester was responsible for creating pass/fail tests for the backlog tasks. This ensured that the needs of the stakeholder were met. (Barraood, 2022) “In order to nimbly test a software system during ASD ‘Agile Software Development’, it is crucial to identify what to test (e.g., requirements) and how to test it.” Once the tester knew that information, they developed tests that ran concurrently with the program. The tester also created tests for the done work to make sure it was what was needed. One thing that was learned was that all three types of tests are needed to be fully successful.

User stories are one of the most important tools. As previously mentioned, the product owner got this information directly from the stakeholder. The product owner then put that into user stories. User stories fit into the statement of: As a <role>, I want <to be able to do something> so that <benefit>. This was from input given to the product owner directly from the stakeholder. This was important so that the team was not developing a product that was not what the user was looking for. The user stories also had acceptance criteria. These were the smaller bullet point description items that had more detail as to what the stakeholder was looking for. The initial meeting with the stakeholder was to determine descriptive and accurate user stories. The user stories were then turned into the backlog tasks. The tester used the user stories to create the pass/fail testing. In this project it was important that the user stories included what each slide needed to show. It also was later discovered that the stakeholder was actually looking for spa and wellness locations. Although it was not a tremendous change, it did take rework. It would have been better if the product owner had captured that information in the first user stories.

Interruptions can drastically affect the team and the projected goals of the project. As was just mentioned, it was later learned that it was not any type of vacation and was instead a specific type of vacation that they were looking for. This interruption was able to be added into the sprint without failing to meet the sprint deadline. It did take a lot of extra work. One developer had to be devoted to looking at previous slides to make sure that they met the requirements and changing them if needed. The developers working on the current tasks had to quickly change to the correct requirements. Our team was able to do this as the developers had an open mind to change and the scrum master made sure that all the changes were understood.

Communication is crucial to a team’s success. With that, when we wrote our charter, we set expectations that calls and emails were to be returned within 4 business hours. This makes sure that one person’s progress is not stalled while waiting for a response from another team member. While critiques are allowed and even encouraged, it is required that all team members treat each other with respect. One example of an email that was sent is:

Good Afternoon Project Owner and Tester,

I have been made aware that there are new developments on our project. As we approach the next sprint, I would ask for those to be put into the backlog as soon as possible. If project owner can make sure to have the complete user story and backlog tasks prioritized, we can then get into sprint planning. I would like to make sure that we have those available for our planning poker estimation. This way we can see what we can fit into the next sprint.

If the product owner can also make sure to get that information to the tester, the tester can then establish the pass/fail criteria which we would then like communicated to us as well. As the next sprint starts in two weeks, I would appreciate responses from both of you within the week so we can make sure that we stay on target. If you have any questions for me or if I can be of any assistance, please let me know. I look forward to your response.

Thank you for your time,

Steven

This email was a typical email and was effective. It was polite but also direct. It defined who it was to, exactly what was needed, and when it was needed by. This sets proper expectations for the receiver.

The physical organizational tool that was used was the Kanban board. This helped as all team members could adjust it and also see what tasks were in progress. We also used the online platform of Microsoft Azure. The whole product backlog was kept in this program and when holding the sprint planning session, tasks were dropped into the current sprint for those tasks to be worked. The user stories were also held in the program. This program also ran some analysis for the retrospective.

The Scrum – Agile method worked well for this project. It allowed for the stakeholder to make changes when needed. The project owner was able to communicate with the stakeholder effectively so that the stakeholder had one point of contact. Smaller amounts of code were able to be written and tested sooner. This allowed any errors to be caught and fixed before it escalated into a larger error. One of the cons of this style was not addressing the entire project with a strict deadline. There were only 5 weeks to get this done which amounted to 2 full sprints and one short sprint. It was hard to make sure that everything would be done in time. Overall, I think the agile method was appropriate as it allowed the team to be flexible to change and test the product so that the final product was exactly what the stakeholder was looking for.

References

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