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CS 250 Final Project – Review and Retrospective

Different software development methodologies are used in today’s companies in order to bring an idea to life. For years, waterfall methodologies were used, in which an idea is presented, lots of details are ironed out, information gathered, and then production of the program begins in a step-by-step process (like going down a waterfall) that isn’t fully reviewed until product completion. In some situations, this is a very applicable methodology for software development. More recently, agile methodologies, specifically the Scrum-agile methodology, have been developed and used. Agile methodologies involve fewer details at the start of production and more frequent check-ins with the client as functionality of the product is rolled out as it is completed. This methodology creates flexibility and adaptability for the development team. It also allows for work to get started before the final product is a complete vision.

The development team’s work on the SNHU Travel program can be broken down by which role each person had on the team. The Product Owner works with the clients and stakeholders, gets ideas of what is needed from them, and organizes these ideas into user stories and a product backlog. For SNHU Travel, the Product Owner took the customers’ suggestions about having a Top 5 destinations and ability to filter based on vacation type into account and created user stories and backlog entries for those features to be added into the program.

The Scrum Master’s job is to run daily scrum meetings, help the development team as necessary, and keep everything on track by working with the Product Owner to organize the backlog based on the development that the team has been doing. The Scrum Master also organizes and plans the sprints, or the windows in which an amount of development gets done based on items in the product backlog. The Scrum Master selects which items in the backlog should be completed over the course of the sprint and assists the development team with the creation of those functionalities.

The tester’s job is to take the information from the Scrum Master, Product Owner, and backlog and create “tests” to check if the functionality of the program is meeting the desired outcomes. They do this by working with the user stories created by the Product Owner. In the SNHU Travel program, the tester created functionality tests based on the user stories such as being able to filter the vacation packages by vacation type. The tester created tests to make sure that when a user tries to filter the options by vacation type, the program successfully does so by listing the vacations from closest match to farthest match.

The developers take the information from all the above-mentioned roles and work on the actual creation of the program. They create a function based on a user story that is being focused on in a sprint created by the Product Owner and Scrum Master, and then have an end goal so that it will pass the tests created by the tester.

The Scrum-agile methodology allowed for the completion of the user stories as I explained with each role. It’s because there is a structure to take a user story from start to finish that allows the Scrum method to be so successful. Multiple user stories can be focused on in a sprint, and splitting the responsibilities of completing a user story allows for quick and efficient product development.

Scrum-agile methods are more flexible than waterfall methods. We see this occur with the change made to the program in the middle of the sprint. The stakeholders said that “wellness/detox vacation packages” were the most popular and needed the program to reflect that. The Product Owner took this information to the Scrum Master who shared it with the rest of the team, allowing for a quick change in development as the team reworked the program to fit this change. In a waterfall method, that functionality might not be able to be changed until the entire program is finished because of how the development cycle is structured. The program might also not be presented to the stakeholders until it is completed, so they might not realize that something needs to be changed until the end of the development process.

As the development progressed, communication was important to the success of the program. Having open communication between members of the team allowed the team to work out errors, figure out the changes that were occurring, and clarify questions that the development team had. An example of an email sent to clarify questions is below:

“Hi \*Product Owner\*,

As we finish up this sprint, the development team appreciates you notifying us of the changes being made to a section of the program. Please be sure to rearrange the backlog as you feel necessary to match up with the new plan. The development team has some questions for you as well before we start the next sprint to work on this change:

Question 1.

Question 2.

Question 3.

Please try to get this information from the client and get back to us ASAP so we can feel confident going into this next sprint with the changes ahead.”

These communications were vital to the development of the program for SNHU Travel, and passing along information allowed for the whole team to work efficiently and effectively.

To assist with communications, the team used JIRA as an information radiator. This helped the whole team visualize the tasks that were being focused on in the sprints. JIRA was a great tool for the team to use on several levels, as the Product Owner was able to organize the backlog and display it and the Scrum Master was able to organize the tasks for the sprint. The rest of the team was able to view all the tasks that were being worked on, needed to be worked on, or had already been completed.

Scrum has its pros and cons, and I think that the pros outweigh the cons for the program for SNHU Travel. Because of the Scrum methods flexibility, the team was able to adjust as necessary when things needed to be changed at the last minute. The process to develop a program through Scrum also allows for the ability to change and add functionality as the program is being developed. In a waterfall method, the program would need to be completed as it has much less flexibility in the development process. For these reasons, this was the way to go for the SNHU Travel, as vacations are ever changing and changes to the program will probably be necessary in the future. Scrum methods allowed the team to be adaptive and flexible while working towards Sprint goals.