**Sprint Review and Retrospective**

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CS 250: Software Development Lifecycle

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December 12, 2021

The Scrum team that we have put together to work on the SNHU Travel project has proven to be a reliable, solid group of people that have shown exceptional progress in adopting agile principles and delivering an outstanding product. As the Scrum Master, it was my job to put the team together and ensure that the entire team not only understood the philosophy behind agile, but also to help them embrace it. If a developer or tester was not applying agile principles to their work, it was my responsibility to find out why: did they not understand the importance of a particular aspect of the methodology or was it more of a personal preference for them to do things the way they were used to doing them. The Scrum role that I see as most beneficial to our company and projects is the Product Owner. Our Product Owner, Christy, held the initial focus group for the SNHU Travel project and played a major role in helping this project succeed. Having her as the liaison between our team and the customer was invaluable and, in my opinion, absolutely essential to delivering a product that fully meets the customers’ expectations in terms of value. Our developer/tester team was able to provide satisfactory estimates on the work that needed to be done and participated well in the Daily Scrum helping to ensure that the team was always on the same page. The Product Owner acts as the speaker for the client, the Scrum Master makes sure that the developers and testers understand what is expected of them and helps them follow the principles of agile, and the developers and testers are responsible for the actual development of the product. It is my goal to make my developers and testers feel empowered and give them some control of the developmental progress. It is NOT my goal to make them feel like mere workers or underlings that must obey every command they receive from the higher-ups.

The Scrum-agile approach contributed greatly to the successful completion of each user story in the project. When looking at the requirements gleaned from the initial focus group, there were many things that could have been grouped together under the same functional category. For example, the ability to allow the user to set travel preferences in their personal profile and the functionality of providing the user with “Hot Deals”. Both of these requirements rely on the personal preferences of an individual user, and while it may seem like a good idea to tackle both of these requirements at once, separating each one into its own user story allowed the team to ensure that the functionality required was present for each case, independently. Breaking the functionality up into small chunks i.e., user stories, allowed the developers to focus on one thing at a time and avoided confusion and unnecessary code. The user story process is iterative and incremental, meaning each story is completed before moving onto the next one, and during completion of a user story the team is learning what works best and is adapting what they learn to each new story moving forward.

The Scrum-agile approach was also crucial to the project’s success when the requirements changed, and we had to shift gears. When Christy, the Product Owner, came to the team and informed us that SNHU Travel was now only interested in providing wellness and detox vacation packages to their customers, our initial reaction was to panic. The developers and testers were upset because they assumed that this change would invalidate all of the work done so far, and that they would need to start from scratch. However, after talking through this with Christy, we realized that only the search filters and keywords would need to be changed, and all of the code already written to handle the displaying of the destinations could be used as it was. We were able to modify the relevant user stories and the development team wasted no time making the changes needed. Because of the nature of the agile process and owing to the bite-sized chunks of functionality defined by user stories, it was not difficult at all to look at the product backlog and ascertain exactly which pieces of the project needed to be changed in order successfully deliver the (new) expected product to the client.

Effective communication is important for any team of people working together, but I believe it is even more important for a Scrum-agile team. The ability to articulate concerns and provide responses to your teammates is absolutely necessary when working within the iterative framework of Scrum. The daily stand-up provides a perfect setting for open communication, but its dense and focused format sometimes leaves questions unanswered. Email communication should be used whenever face-to-face meetings are not possible. The Product Owner had an email interaction with a developer, where the developer suggested using TDD and the Product Owner followed up with some concerns they had. An excerpt from the developer’s email:

“When TDD is used, unit tests, which ensure that the code is meeting all of the required functionality, are written first and before any development actually takes place.”

To which the Product Owner responded:

“I'm concerned about how this could affect the time required to complete each Sprint. Do you think this could change how long our Sprints will be?

Is there anything you'll need from me in terms of backlog grooming or prioritization in order to ensure you have what you need to use TDD?”

And the developer’s final response:

“I do think that using TDD will extend the length of each sprint, but not by a large amount. We will need to spend time at the beginning of each sprint writing the unit tests that will be used to test the functionality that is being developed within each sprint. In my opinion, this would only add one to two days to the length of the sprint.

I think it would make sense to add the task of creating the relevant unit tests to the product backlog during grooming, and to make that task a priority within the sprint so that we have the unit tests ready before sprint development actually begins.”

In my opinion, this exchange was effective and encouraged collaboration among team members because the Product Owner and the developer were able to have a dialog about a problem, and a solution was offered, in a respectful manner.

The most helpful tool by far, in my opinion, was using a Kaban Board as a visual aid at the Daily Scrum event. I think this contributed the most to our success because the event happened daily, and the tool allowed everyone on the team to see exactly who was working on what and what else still needed to be completed for the sprint to be a success. During Sprint Planning the developers and I would create the board to be used throughout the sprint, and we relied on this visual aid throughout the course of the sprint.

When considering the effectiveness of using a Scrum-agile approach with regard to the SNHU Travel project, I think the most important metric to look at is the satisfaction of the client. Did we deliver the product in a timely fashion? Did the product meet all of the client’s expectations? These questions can be answered by assessing the overall satisfaction of the client upon project completion. The pros to using Agile in this project were: increased communication among team members, the ability to make mistakes without huge penalties, flexibility with regard to changing product requirements, and the morale of the team. I have already stressed the importance of flexibility in a project like this, and I believe this directly relates to team morale and increased communication. Since everyone was ready and willing to adopt Agile principles and eager to give it a try, the pressure that development teams sometimes feel was not present. Our Scrum experiment was put to the ultimate test when the product requirements changed during development, and I submit that the team handled it almost perfectly. Had we been using a traditional Waterfall approach I believe the team would have felt much more pressure and stress given that situation. While these are all positive points, I did notice some cons to the Agile process along the way. Initially, the team was confused by the Agile process, team members that were used to working alone did not work well with team members at first. Also, the team being responsible for estimating deadlines and deciding how to accomplish the tasks was a bit daunting at first. These things all come down to the experience a person has working with Agile, as the more it is used, the more comfortable a person is within the framework. Our Product Owner had to pick up much of this slack initially and make some decisions for the team in the beginning. In my opinion, the success of an Agile project has more to do with the people involved than the actual project. This is not to say that some projects are not inherently better suited for a particular approach, sometimes they most certainly are, but the commitment of the team to Agile principles holds more weight when considering the success of an Agile project. In the case of the SNHU Travel project, I think that the Scrum-agile approach we took was indeed the best choice.