# CS - 250

Final Project

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For the SNHU Travel project we had all four roles of the Scrum Team working together using the agile methodology. These include the Scrum Master, Product Owner, developers, and testers. The Scrum Master is on the same level as the rest of the team and acts as facilitator. By being a guide and source of knowledge, the Scrum master both keeps meetings on track and helps other team members complete their goals. Another important function is removing obstacles for the rest of the team. One example of the Scrum Master guiding the team was they kept things on track during the daily Scrums by sending potentially lengthy distractions into sidebars to be addressed later. Another example was providing insight on how a developer or tester could tackle a problem or know the best person to go to for that knowledge and team them up (Schwarber & Sutherland, 2020).

The Product Owner’s most important goal is engaging with stakeholders, with a close second being relaying that information to the Scrum Team. A good Product Owner will listen, ask questions, clarify responses, and offer strong suggestions to clients. This last point is what separates the good from the great when it comes to Product Owners. The client might not know exactly what they want, but the Product Owner can guide them to a solution that is both better than they, the client, thought of, but also deliverable by the team. The Product Owner then relays information to the team in a clear and concise manner by using user stories and the product backlog. It is important for user stories to be independent, small, and negotiable. They need to be able to be completed within a 2-4 week sprint, with clear criteria for both developers and testers (Cobb, 2015). For the SNHU Travel project, the Product Owner developed strong user stories, which were then placed in a product backlog for the developers and testers.

The developer and tester roles within the Scrum Team go hand in hand. While the developer creates the code to fulfill the user story, the tester is creating code to ensure the criteria for that story are met. In this way a user story can be marked as “done” by the end of the sprint, rather than at the end of the project. A popular strategy in this arena is test driven development, where the tests are written first, those tests are shown to fail, then code is developed to pass those tests (Martin, 2020). One of the ways both the developers and testers contributed to the success of this project is we were faced with a change in user story mid-sprint due to a clarification and change of direction from the client. Both roles had the adaptability to adjust to that change on the fly and complete the user story on time.

The Scrum-agile approach helped us complete the user stories during the sprint because all the roles worked together to keep the project moving forward. The Product Owner put together clear, concise, and realistic user stories. The Scrum Master kept the team on track by making sure everyone was focused on the task at hand, starting with the Team Charter and continuing through the completion of the project. The developers and testers both were able to contribute to estimation of time requirements using the Planning Poker strategy (Sliger, 2012). They were then able to complete the user stories on time and adjusted to changing requirements as necessary.

At one point, SNHU Travel changed their requirements mid-sprint. Because of our agile approach we were able to adjust and meet the new requirements on time and to the customer’s specifications. At first, we had created a JAR file containing the top five travel destinations. The client then clarified their expectations, stating they wanted a slide show of the top five destinations for detox and wellness. While the team was concerned at first that this would derail the sprint, the Product Owner did a good job in adjusting the user stories and the Scrum Master was able to keep the various roles focused. Because of this leadership and the adaptability of the rest of the team it turned out to be a very manageable change.

Communication among the team is important. We used daily Scrums, an information radiator, and personal communication such as email. The emails I sent were effective because they were concise, while still containing the information needed for an appropriate response. The following is an example email:

To: Product Owner

From: David

Dear Product Owner,

In reviewing the user stories to develop test cases, I have a few questions that could use clarification:

* Set a price limit:
  + Should there be both a minimum and maximum, or just a maximum?
  + Are any deals close to, but not within, the range allowed? If so, what is acceptable?
* List of deals based on past trips:
  + Should the ratio of past trips be reflected in the deals, i.e. if 60% of past trips were cruises, should 60% of presented deals also be cruises?
* Hot deals based off user profile:
  + What criteria in the profile are the deals based on?
  + Is this story affected by past trips as well as user input on their profile?

Thank you for your help,

David France

We used several tools and Scrum-agile principles to complete this project. These included daily Scrum meetings, a Team Charter, and a message board that we used as an information radiator. The Team Charter set clear expectations for the team from the start, and since everyone took part in its creation there was no problem getting buy-in from the whole team. The daily Scrum was particularly effective at keeping the team organized because it allowed everyone to give daily updates on what they’d done, what they were doing next, and any challenges. This proved crucial to keeping the team on track when expectations changed. One additional tool that might have added to the effectiveness of the team would be a project-management software tool such as JIRA. JIRA fills the role of information radiator, but takes it to a new level. Containing information on user stories, timelines, and metrics on how the team is doing, JIRA makes a great reference to keep the team updated (Jira Software, 2023). This would have been particularly effective since our team is remote, making a virtual information radiator an important addition.

The Scrum-agile approach was very effective in helping the team complete the SNHU Travel project. Each team member had a well-defined role, and we were able to work together over short sprints to complete the project on time. The biggest pros of the Scrum-agile approach were creating a working product as quickly as possible, testing as we went, and being able to adjust to changing expectations. Because we were able to put a product in front of the client in a timely manner, they were able to come back with changes they wanted to see. We were able to adjust to those changes, and because we were testing as we went there were no surprise bugs or logical errors when the project was completed. We were able to deliver an on-schedule product that was exactly what the client asked for. The only potential con is we needed a team that could be flexible and could communicate effectively, but fortunately that wasn’t an issue for us. The Scrum-agile approach was the best approach for this project, particularly because the client had a deadline to meet, but also had dynamic requirements as the project moved forward.

# References

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