# CS 250 Sprint Review and Retrospective

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## Scrum Team Roles and Their Contribution to the Project

Each team member successfully contributed to the completion of the SNHU Travel project in unique ways. More specifically, the following roles were vital to project completion: scrum master, product owner, developers, and testers. Missing just one of these groups would result in the inability to deliver to the customer. Each member contributed as follows:

* The scrum master organized daily scrum meetings, prompted communication among the team (generally using the three basic questions: What did I do yesterday? What will I do today? What is impeding me?), assisted in sprint planning, and helped the product owner manage their backlog.
* The product owner worked directly with SNHU Travel (the customer) to determine their needs for the project, communicated these needs with the team, and worked to address any issues or changes that arose during the project, such as the shift in focus to more detox / wellness vacations.
* The developers created the SNHU Travel app to meet client specifications, working in sprints to deliver specific features (ex. A top 5 list) during each sprint, and made changes to the application based on updates from the product owner.
* Finally, the testers worked throughout each sprint to thoroughly test developed code with use cases and ensure that there were no inherent flaws with the application, communicating with the developers as necessary to fix bugs and using revised test cases (such as how the program should be in slideshow format) as they arose.

Each team member was essential to the successful completion of the project.

## How Scrum-Agile Helped in User Story Completion

By following scrum-agile practices, the team was able to successfully gather user stories from the customer and then develop and deliver the requested features. The primary way this was accomplished during the project was beginning with direct interviews with the customer, conducted by the product owner. The product owner asked questions on what the customer wanted the ability to do with the SNHU Travel application, and condensed feedback into user stories. The scrum master assisted the product owner to create a backlog, and then planned the following sprints to address user stories based on team velocity (promoting sustainable development – an agile principle). Each day during the sprint a daily scrum was held in the morning so that team members were aware of progress and required tasks to keep on track. Developers followed the agile practice of incremental development, addressing a limited number of features each sprint, and the testers thoroughly reviewed these features throughout the sprint. Once completed, the features were shared with the customer (following the early and continuous delivery of software agile principle), who then provided feedback and updated requests which were incorporated into the following sprints until the project was completed.

## How Scrum-Agile Supported Completion Despite Interruption and Changed Direction

One of the main aspects of agile development is the ability to respond to change over following a strict plan, and that aspect was followed during the SNHU Travel project. During development, the customer requested a change to focus on detox / wellness vacations. The product owner was able to take note of this, add changes to the backlog with the scrum master, and communicate to developers and testers. The developers and testers were able to adjust code, test it, and deliver software which met customer requests in a timely matter. The team came together to quickly adapt to new customer needs, thanks to the flexibility built in to scrum-agile.

## Samples of Communication

Throughout the course of the project there were numerous instances of communication between team members. Two examples include the following, with the first being from the developer to the product owner regarding updated customer requests:

“Hello Product Owner,

After reviewing updated customer requests during our recent meeting, I had a few questions I was looking to get clarification on when you had a minute:

* Are vacations included in the system now limited to solely detox / wellness vacations, or should traditional vacation packages still be displayed?
* What type of package should the top five list focus on? There are many different wellness type vacations, including spas, resorts, meditation, yoga, and so on, but I’m not sure if there’s a specific area we should focus on to determine the top five.
* Should we introduce a filter for a specific type of wellness vacation, such as the types listed above?

Thank you[.]”

The second example is from also from the developer to the product owner, but focuses on development for testing purposes:

“Hello Product Owner,

While developing features for User Story #2 (Destinations Based on Price) I came across some uncertainties. When you had a time, could you please give me guidance on the following:

* When displaying destinations, what format should they be in? For example, should there be a scrolling list, slideshow, or some other format?
* Where should users go to leave a review? Their profile, a specific travel package page, review page, or something else?
* Is there a specific order travel package details should be displayed? I was thinking name, picture, review score, price, and description in that order, but if there’s a different way the user wants it, please let me know.

Thank you!”

In both instances, communication was to-the-point with specific questions and phrased in such a way to prompt a response from the product owner to move forward with the project. Questions focused on current development issues and were aimed at clarifying customer user stories, such that the product could be developed to meet their needs.

## Organizational Tools and Principles Contributing to Success

There were a few tools and principles that contributed to the success of the team during the SNHU Travel project. To begin with, the team utilized an information radiator, Jira, for team members to post work status to under four categories: to do, in progress, under review, and completed. Using Jira also allowed the team to track sprint progress through charting methods, reports, and bug tracking. These items assisted the product owner to track progress and address problem areas and allowed the rest of the team to understand where they were in relation to overall sprint and project goals. Another principle that contributed to success was the use of face-to-face communication. During the project, team members met multiple times to discuss the project and any updates, and by doing so face-to-face, each member was able to get clarification on issues, resulting in less time spent in development. Perhaps the most important principle that contributed to success was the ability to adapt to changing requirements. This allowed the team to provide the customer with exactly what they needed, particularly as requirements were clarified during the life of the project.

## Overall Effectiveness of the Scrum-Agile Approach

Overall, the scrum-agile approach was highly successful for the SNHU Travel project. Given that the nature of the project was not set from the beginning, following this approach allowed an incremental development of features and allowed change during the project, as opposed to another stricter method of development such as waterfall in which all requirements would’ve had to been determined prior to development. One of the positive aspects of using scrum-agile vs. other methods was certainly the ability to adapt to change, as was required when customer requirements changed part-way through the project to focus on more niche vacation packages. Another positive was the significant communication between various team members, as the product owner, scrum master, developers, and testers all interacted daily to make sure the appropriate amount of progress was being made. One negative was the increased uncertainty which could prove stressful when developers had made significant progress on customer requests only to find out that these requirements were changed part-way through the project. Despite this, scrum-agile was likely the most effective approach given the initially unclear customer requests for the project at the outset, as well as changing requests during the project which were quickly adapted to by the team.