CS250 Sprint Review and Retrospective

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CS250 Sprint Review and Retrospective

# A. Demonstrate how the various roles on your Scrum-agile Team specifically contributed to the success of the SNHU Travel project.

The success of the SNHU Travel project was contingent on establishing an empowered team to collaborate and efficiently carry out tasks. It was important to keep this team small as well as have a level of autonomy. A core principle in the Agile methodology is, “The best architectures, requirements, and designs emerge from self-organizing teams" (Beck et al., 2001). The team consisted of a:

* ***Product Owner***: This person’s role was to represent the client by engaging in direct contact with them to determine their requirements and overall expectations. During the SNHU Travel project, the Product Owner detailed important business requirements to the team from the client and provided direction while prioritizing the work to be done. This ensured that the development team understood the project roadmap, as well as items in the backlog and pending tasks, which were managed by the Product Owner, in order to optimize the work to be done.
* ***Scrum Master***: This person’s role was to help and coach the team to work well together by facilitating Scrum events. In the SNHU Travel project, this was primarily done by hosting a daily standup meeting, of no more than 15 minutes, to focus on progress towards the Sprint goal. The team benefitted from these meetings as it improved their communication, helped identify impediments, and promoted quick decision-making.
* ***Developer***: The Development team is usually self-organizing, cross-functional, and work as one cohesive unit. They are expected to perform effective coding and refactoring when needed, as well as be ready to make any new integrations as they receive feedback after each Sprint. The Developer on the SNHU Travel project had to improve the reliability and maintainability of the software application that was being developed. Also, when the Product Owner announced changes to the team from the client about adding detox and wellness sites to the application, the Developer had a key role in ensuring that this adjustment was integrated.
* ***Tester***: Test-driven development is widely used in Agile, and it is the Tester’s responsibility on the team to ensure that the right test cases are being performed. In the SNHU Travel project, several test cases were written for each user story within the Sprint. This allowed for concurrent testing and prevented any last-minute surprises in the application. The test cases were written with clear and detailed acceptance criterion that enabled everyone on the team to understand the functionality that had to be provided in the application for the client.

# B. Describe how a Scrum-agile approach to the SDLC helped each of the user stories come to completion.

A Scrum-agile approach works best for software development due to its dynamic nature. Unlike a traditional plan-driven approach, which moves from one phase of the project to the next without an efficient way of making any significant changes in the process, the Scrum-agile approach allows for a less defined, more dynamic process that leaves room for changes by breaking down the project into several iterations called Sprints.

By doing so, the SNHU Travel project team was able to take user stories from the backlog, prioritize them, and spread the work out over time. They were able to focus their work on each story and make sure they were done to the client’s specifications, with test cases applied to them in the process. Each user story was given an acceptance criterion that could be reviewed at the end of each Sprint iteration, rather than near the end of the project.

Additionally, each user story was given a size metric that allowed the team to estimate the time it would take to complete each Sprint, and thereby allowing the team to incrementally develop code with an accurate estimation. In a traditional plan-driven approach this estimation would have been done up front without much input from the development team, which could have resulted in unforeseen delays. One of the user stories, for example, was marked as large because it involved offering customers a package deal based on their recent purchase history. Stories such as this can be broken down into epics since they involve several layers, the package deals and the customer’s purchase history, each with its own steps to fulfill. Using a Scrum-agile approach gives the team the flexibility to make these decisions while in progress, rather than having to figure these unexpected circumstances out in the beginning.

# C. Describe how a Scrum-agile approach supported project completion when the project was interrupted and changed direction.

Midway through the SNHU Travel project, there was an interruption to the build of the application brought on by a major change in direction from the client. Instead of displaying the travel destination sites in a list format on the travel website, they decided to use a slideshow format instead. This required a significant undertaking in refactoring the code for the application as well as reordering items in the backlog to fit this new priority in. In a traditional Waterfall model such a change would have come at a high cost since a great amount of time and effort had already been utilized early in the design and analysis phases. But in a Scrum-agile approach, such changes are expected and can be implemented efficiently.

The Product Owner held a meeting with the team and discussed the switch in format that needed to be implemented. The team then discussed how to handle this new transition together, further embracing a collaborative endeavor, rather than simply being told what to do. The team was able to ask questions concerning the requirements and timeline, as well as suggest how they would be able to meet the new expectations.

# D. Demonstrate your ability to communicate effectively with your team by providing samples of your communication.

Below are a couple of screenshots from a written conversation I had with a team member during the SNHU Travel project:

Text, letter

Description automatically generated

Text, letter

Description automatically generated

Openness and transparency are two of the most important values in Agile methodology when it comes to communication (Cobb, 2015). In this written dialogue between myself, the Developer, and Brennan, the Scrum Master, we maintained a level of openness that allowed us to understand each other’s expectations while working on the project. A lot of disappointment and frustration occurs on a team when there are gaps in expectations. Clear communication also fosters collaboration, as Brennan and I discussed what the ideal length of Sprints should be, along with some very important values and rules of behavior the team should adopt as we worked together on the project.

Additionally, the sharing of information, while the project is moving along, is another important factor that is only achieved through effective communication. This allows everyone to be on the same page and creates traction for the project to move from one Sprint to the next. It also helps identify impediments that may be slowing one person down and cause the team to slow down as well. Through effective and regular communication, these can be resolved in collaboration.

# E. Evaluate the organizational tools and Scrum-agile principles that helped your team be successful.

The Agile methodology comes with a set of 12 principles that are its guiding precepts in supporting teams in implementation and execution. Principles such as, “The best architectures, requirements, and designs emerge from self-organizing teams” and “Welcome changing requirements, even late in development” (Beck et al., 2001) empowered the team on the SNHU Travel project to accept that change is part of the process, as we collaborated in making sure we delivered the best product to the client. These principles were also backed by a fundamental Scrum value that states, “The Scrum Team commits to achieving its goals and to supporting each other” (Schwaber & Sutherland, 2013). To achieve the goal of delivering valuable software to our client, we had to embrace change and learn how to work together as the principles of Agile and Scrum advocate.

A big part of this collaboration was achieved through effective communication which was facilitated by organizational tools. Some organizational tools that were used in our SNHU Travel project included information radiators in the form of User Stories, Test Cases, Product Backlogs, and an Agile Team charter. The latter was one of the most important and primary organizational tools the team implemented from the onset of the project. The team charter established the vision and mission of the project while detailing the team culture, rules of behavior, and what the success criteria looks like. By doing so, the team was able to have a clear path to success while creating a safe environment for everyone to be engaged during the Scrum Events.

By implementing User Stories, the team was able to ensure that our highest priority was to satisfy the customer (Beck et al., 2001), another one of the Agile principles. Written from the perspective of the end user, User Stories enabled the team to get a simple description of the features that needed to be included in the application. These User Stories where then organized and prioritized on a Product Backlog by the Product Owner, which provided an easy-to-follow and manageable plan of execution. Agile principle calls for simplicity, while maximizing the amount of work done (Beck et al., 2001).

Lastly, Test Cases were written and revised by our Tester, and shared with the Developer and the rest of the team as well. This enabled the team to deliver working software frequently throughout each Sprint (Beck et al., 2001), which is another guiding principle of Agile.

# F. Assess the effectiveness of the Scrum-agile approach for the SNHU Travel project.

## Describe the pros and cons that the Scrum-agile approach presented during the project.

* + Pros
    - Since the Scrum-agile approach calls for a more communicative process, this was helpful for the team to collaborate. Communicating multiple facets of the project such as the culture and values, sharing impediments, and keeping each other apprised on progress helped the team reach their goal more efficiently as a team.
    - The Scrum-agile approach gave the team more autonomy to determine estimation and other factors involved in completion of the requirements. This allowed to team to feel more empowered and have a sense of ownership in the project, which resulted in a better product.
    - The Scrum-agile approach of working in small teams made it easier to hold everyone accountable. This meant just a handful of people to meet with daily to understand all the moving parts. Working with large teams can be overwhelming and hard to determine who to go to when an issue arises. But with a small team, we all new our roles and could reach out to each other when needed.
  + Cons
    - Although change is welcomed in Agile, the uncertainty can become a bit tedious at times. For a Developer writing multiple lines of code in one Sprint, only to find out that most of it will be changed the next can become frustrating.
    - The lack of much documentation, which normally occurs in the design and analysis phase of a waterfall project, can also make an Agile project more difficult. For the SNHU Travel project, there wasn’t a design document to work with, and the team had to figure things out on their own. While this does give the team autonomy, there are times when it’s just simpler to build from design.
    - Working in small Sprints may produce faster results thanks to its incremental delivery, however the project can also become fragmented, making it difficult to know what the final product really looks like. Teams could lose sight of the bigger picture and be limited in scope of vision for the project resulting in an incohesive outcome.

## Determine whether a Scrum-agile approach was the best approach for the SNHU Travel development project.

Overall, the choice to undertake this project in a Scrum-agile framework was the best decision. The best example as to why the Scrum-agile approach was best suited for this project is in the ability to respond to change. In a traditional Waterfall model, the customer would have had a difficult time changing the requirements, while the Scrum-agile method is specifically suited for such changes with its iterative delivery of a functional application. And often, these changes require a great deal of collaboration to accomplish, and the Scrum-agile framework also specializes in accommodating such teamwork by means of communication, information sharing, and a feedback-oriented team dynamic, that meets regularly as each team member participates productively.

**References**

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