**CS 250 Final Project**

Gideon Gendale D. Mesia

Southern New Hampshire University

CS 250: Software Development Life Cycle

Professor Haruka Konishi

22 June 2025

**CS 250 Final Project**

The Scrum-Agile process is a process that has replaced the waterfall methodology through its ability to adapt through changes, communicate amongst its members, and ability top go back through the process to adjust direction. While the waterfall methodology offers a rigid structure with minimal communication, the Scrum-Agile Method comes to mitigate those hurdles that come with the former’s method. With the Scrum Agile method, the SNHU Travel project was able to shift its focus when needed, members were able to voice their concerns, and the project ended up much more aligned with the customer’s vision.

The various roles in my Scrum-Agile Team contributed to the success of the project by communicating through all parties and allowing for changes mid-way. The Scrum Master is used to guide the members throughout the project development using Scrum Event’s. One instance is Sprint Planning, where the Scrum Master guides all members into what the end product for the customer should be, which allows all members to be on the same page within the project. Another event is Daily Stand Up’s, which allows members to voice their concerns throughout the project, what they’ve accomplished, and what they need. Lastly, they also facilitate the Sprint Reviews and Retrospective, which looks at the product deliverance and what they could potentially improve on. With these events, the Scrum Master can remove issues within the project and mentor the development team, which allows for continuous improvement throughout the development cycle. An example from the SNHU Travel Project was when they created the Agile Team Charter describing the requirements of the events that were going to be happening, and the roles and positions people were given to fulfill the project. The assignment also showcased the Scrum Master facilitating communication requirements for the project.

The Product Owner works hand in hand with the Scrum Master, as they work directly with the client and can communicate the client’s vision to the Scrum Master. The Product Owner essentially fills the gap between client and development team which allows for broader communication and the product fitting the customers’ requirements as close as possible. With their expertise, they tell the development team the direction the project will go to while communicating with the client. An example from the SNHU Travel Team is when the Client wanted to switch the layout of the Product, the Product Owner relayed it to the team to adjust to the client’s requirements.

The next team member is the tester, which is the quality control for the product. The tester works hand in hand with the developer to make sure bugs aren’t an issue or to make sure the product works, and the user experience isn’t diminished. They test the product often and communicate to the Product Owner with their findings so they may communicate to the client issues with user experience. An example of this was when the tester had to email the product owner issues with how the website was being developed as the website was not user friendly at all, which allowed the product owner to talk with the client to adjust the project’s direction.

Lastly, the developer is the one who creates the product for the client. They, like the tester, work with the client to adjust the product to the correct requirements. They are most impacted by the Agile Method because of communication from all ends up to the client and even the customer. Some instances in the SNHU Travel project included writing an email to the Product Owner for deficiencies and requirements for development and developing two different products because of the customers changing requirements from a single bulletin board style website to a slide show.

Scrum-Agile approach to the software development life cycle (SDLC) helped user stories come to completion by allowing teams to adapt, communicate, and continuous progress checks. One such instance is the Iterative Development, which focuses on small chunks of a project, with each chunk being able to be sent out as a product so it can be tested and fined tuned before moving on. One such case in the development of SNHU Travel was when we initially coded and tested the initial product and sent it up to the client but then adjusted the final product to match the client’s final vision. Another instance is deciding on the priority of the backlog. In the Test Cases portion of the Project, after finalizing the priority of three of the Work Products, it was adjusted to see which features would be needed and the main priority, with the locations being the highest, and the filters for price and preference being ranked medium and low respectively. Each member on the team is also self-organizing, however the Daily Scrum meetings is where the Scrum-Agile Approach shines as when the members communicate, they are able to move on to bigger projects as seen with the Scrum meeting videos, with each member receiving feedback and keeping each member accountable for their responsibilities.

The Scrum-Agile approach supported project completion when the project was interrupted and changed direction by allowing communication from the client to the development team, before the project continued further. Since each project is done by chunks and each piece is assessed before continuing, the client was able to give input on the changes needed before the previous project was completed, which saved time, money, and allowed the project to be completed in a timely matter. This is what happened in the Product Application portion of SNHU Travel. The Product Owner was able to reassure us that the actual portions that needed to be changed weren’t as bad as we had initially thought, and the directions the client gave allowed us to reuse previous assets to make sure the product was complete, switching from exciting destinations to health and wellness.

I worked as the Product Owner in the discussion portion for the team, which included me communicating with the Scrum Master with the transition of Vison Quest from the Waterfall to Agile method. I communicated with the team on what I agreed with and why it would support our team’s transition and any questions I had about the type of Sprint Planning they were going to use and how they felt about my roles. Ultimately, we ended up agreeing with most of the planning for the future of the company, as well as what methods and principles each member would focus on. In terms of the SNHU Travel, the emails for practicing communication with the Product Owner was essential, as direct communication with them would help further clarify requirements from the developer and push recommendations by the tester, with the Product Owner using the Scrum Master to facilitate those needs.

There are 12 total principles, but the one that I wanted to highlight in the projects is “Business and developers must work together”, “Face-to-face conversation”, “Self-organizing teams”, “Welcome changing requirements”, and “Customer satisfaction through early and continuous delivery”. Businesses working together with developers allow for the clearest communication to get the correct product which can be seen with the developer was informed by the product owner that the client wants changes with the website, which now focused on a slide show and wellness destinations, reducing the need to make modifications to the website in the end saving time and money. Face-to-face conversations include the Scrum Meeting and any other Scrum Event, which allows for faster communication, instead of waiting for an email reply, which can be seen with the Scrum Master creating the Agile Team Charter. These face-to-face conversations allow for the members to be easily heard and allow everyone to give in their input of their status and keep every member accountable. Self- Organizing Teams allow members to use their expertise to focus on the requirements at hand and remove micromanaging, which allows each member to focus on their task at hand, which can be seen in the development of the SNHU Travel project when each individual member did their own portions before presenting to the rest of the team or communicating to an individual member. Welcoming Changing Requirements and Customer Satisfaction go hand in hand, because as the project changes as seen in Module 5 where the client requested slides and wellness centers, the developer was able to change it to the customers requirements, overall leaving them with as better product, increasing customer happiness, which means they’ll return to us with even more projects. JIRA and Azure Boards would be used as tools for communication by helping with coordination and efficiency by allowing users to share issues and task throughout platforms, including backlogs and crossing out finished tasks.

The pros of using the Scrum Agile method in this project were mainly its flexibility, communication, and taking the project into small chunk or iterations. The flexibility is emphasized by being able to go back to previous iterations to fix issues, or redo a portion before moving, unlike the waterfall method which waits until the end, or is time consuming and expensive to go back. Communication is the star of the Agile Method as on the reading with Vision Quest a lot of developers were solo developers on specific projects, which means they didn’t receive direction and were specialized in those types of projects not getting any input from different perspectives which limits the products ability to be the best. Lastly having each portion into chunks helps prioritize portions and allows for each piece to be testable and examined before moving on. There are some cons however which includes it being less rigid, which leaves for finishing portions open ended, and projects may take longer than predicted. It is also team dependent, with clashing personalities hindering the project if the users do not trust or have mixed feelings to each user.

I believe the Scrum Agile approach for the project was the right direction as the team members seemed to know each other well enough to be able to rely on and trust each other’s judgements. A specific event that occurred that the Scrum Agile approach was necessary was when the client decided to switch the project from exciting and billboard style to health and wellness and slide show based. If it was in a rigid structure, the client’s input would not have been known, and the project would have wasted time and money and may not have reached the deadline. However, because the project was in full communication with the client, we were able to change the requirements mid-way through. Overall, this project required a lot of communication, which the Scrum Agile method was meant to solve.