# Kayla Hood CS250, Mod 7, Final Project

* **Applying Roles**: Demonstrate how the various roles on your Scrum-Agile Team specifically contributed to the success of a project. Use specific examples from your experiences.

*Product Owner* – The Product Owner takes control over the requirements of the product or program being developed. They work with the clients to determine what functionality they are looking for and clarify any needs or changes. They compile all the information given from the client into a log of requirements that the developers work from, and as the requirements are completed or changed, the Product Owner reorganizes what needs to be done and adds or takes away things as the client’s needs change. This allows the other team members to have a clear and concise view of everything that needs to be accomplished and allows them to focus on their departments.

*Scrum Master* – The Scrum Master is the team facilitator. They organize Scrum meetings and sprints, where the development team discusses what they have accomplished or had difficulty with and decides what they will tackle next. The Scrum Master keeps everyone on the development team focused and on track, which helps in efficiency.

*Developer* – The Development Team gets the work done to establish and build the requirements of the client. They determine what they will work on during each sprint from the Product Owners list of requirements, and they plan and execute those requirements. Without them there would be no project or outcome to show clients.

*QA Testers* – Quality Assurance Testers ensure that the work of the Development Team meets all the required standards of a functional program. They create tests and run what the Development Team has completed against those tests to ensure that everything is running as expected while looking for bugs. QA Testing is an essential part of the development process – developers test their code, but QA really takes a fine-tooth comb to it to make sure nothing was missed and is appropriately completed to present to the clients that have commissioned the project.

* **Completing User Stories**: Describe how a Scrum-Agile approach to the software development life cycle (SDLC) helped user stories come to completion. Use specific examples from your experiences.

User stories help break up requirements into easy to tackle pieces. Instead of just having a long list of wishes and needs from the client, that you sort and sift through, it takes each component and elaborates on it. By expanding on each piece by what is needed, what it should do, and/or what it should look like, it makes it easier to visualize the final outcome as well as the approach to building it. It also helps with the organizational aspect of the product backlog and what it includes. By giving each user story a designated difficulty level, it also helps the team decide at what point in development they want to work on it based on the perceived effort that will go into it.

* **Handling Interruptions**: Describe how a Scrum-Agile approach supported project completion when the project was interrupted and changed direction. Use specific examples from your experiences.

The best way to handle interruptions to workflow or the task list is to take into consideration the new needs and add them to the product backlog. Sprint goals shouldn’t be altered while currently involved in a sprint, except in specific circumstances. Any additional requirements to an established user story, or new user stories, should be noted and saved for evaluation for the next sprint. Changes should be discussed early, and user stories that require last-minute changes made by the client should be recycled into the product backlog to either work on in the following sprint or at a later date.   
This approach allows the team to stay focused on the current work and complete their already established goals. If work is changed during the sprint process, it would push back the amount of work slated to be completed, potentially tying up resources and team members into something that could have waited, while other items don’t get completed at all.

* **Communication**: Demonstrate your ability to communicate effectively with your team by providing samples of your communication. Explain why your examples were effective in their context and how they encouraged collaboration among team members.

Communication is important in any business or team. You cannot work together effectively if there is a lack of communication. Asking questions and clarifying different aspects of the project helps ensure that there is no misunderstandings in what needs to be done, as well as allowing team members a better understanding of each other and their strengths and weaknesses. Asking the Product Owner for more insight on what exactly the client is asking for with a particular user story, asking the Scrum Master what the best way to solve a team disagreement is, asking other developers for assistance with a task you are struggling with are all important parts of a communication structure that helps build a strong team foundation as well as ensuring the best product can be put out.

* **Organizational Tools**: Evaluate the organizational tools and Scrum-Agile principles that helped your team be successful. Reference the Scrum events in relation to the effectiveness of the tools.

There are ample options for organizational tools to help a Scrum team flourish. There are digital organization options that provide a virtual environment everyone on the team or related to the project can access, allowing for real-time updates while being more accommodating to team members in different locations and time zones.  
Then there are classic physical organization tools that are varying, whereas many or as few methods can be implemented as needed. Some teams may find just the simplicity of daily meetings and sticky notes to be sufficient for their planning and communicating tasks and accomplishments; other teams may choose to implement established methods such as physical Kanban and/or Scrum boards, or processes like time-boxing and charts to keep track of workflow.  
Obviously, organizational skills and tools are important and necessary for efficiency and keeping track of progress, changes, and delays. Though each team should decide what methods or tools work best for them depending on the needs of the team and the size of the project.

* **Evaluating Agile Process**: Assess the effectiveness of the Scrum-Agile approach for a specific project. Address each of the following:
  + Describe the pros and cons that the Scrum-Agile approach presented during the SNHU Travel project.

Cons of implementing a Scrum-Agile approach are most prevalent when a team tasked with a project is not already well-versed in the Scrum-Agile methodology. If the SNHU Travel team was not already fully operating under a Scrum-Agile system, it would make transitioning difficult and can take up a lot of time and potentially cause unnecessary delays as the team learns how to navigate the new system.  
Not having a defined path for project completion or requirements upfront can also be difficult since things are constantly changing which can make for uncertainty in work and efficiency, as you never know exactly if what you’re working on will suddenly require changes after completion. With a more strict and structured approach, it can feel safer to have all of the information, expectations, requirements and due dates available upfront.

Of course, some of this can also be turned into positives for utilizing a Scrum-Agile methodology. As Agile is based on the idea of being adaptable, and thus everything that is in progress or completed is done so in a way that allows for easier adjustment later. Where if a sudden addition or change to the functionality of a program may cause detrimental setbacks in a Waterfall approach where everything is planned out ahead of time, in an Agile approach this would be very limited as everything around the new changes should be clean and functional, allowing the portion of change to be isolated and seamlessly integrated without disastrous delays or consequences.  
Scrum- Agile also encourages better communication and team cooperation, with meetings and updates that allow for transparency and openness for discussing concerns, delays, difficulties and accomplishments. This can allow people, and the team, work better both individually and as a unit to produce high-quality work in an efficient manner.

* + Determine whether or not a Scrum-Agile approach was the best approach for the SNHU Travel development project.

I think Scrum-Agile was ultimately the best approach for completing the project since there ended up being changes made as the project progressed. If a waterfall approach had been used, it would’ve been much more difficult to implement the new requirements the client had requested. Like when the SNHU Travel representative determined that they wanted to change their focus to specific wellness retreats, it meant that the development team had to rework their focus and test cases to account for this new requirement, but thanks to using Scrum-Agile methodology, it meant that changes were easier to implement with less concern over having to redo all the work that was done up until that point.  
If I waterfall approach had been used instead, everything would’ve been planned out at the beginning stages of development, and changes such as the one requested could’ve been disastrous, potentially requiring complete rework of the program that had been written so far.   
Taking the initiative to test as the program is developed allows for easier integration of new functionality.