**7-1 Final Project**

**Demonstrate how the various roles on your Scrum-agile Team specifically contributed to the success of the SNHU Travel project. Be sure to use specific examples from your experiences.**

**Scrum Master**

The scrum master is incredibly important but not above anyone. I think that is the most important part of the position. Scrum masters are like “8 men” in rugby, they are not above the rest of the forwards but they should be the driver. The Scrum master should be leading by from the fronts by example and encouragement as opposed to mandating things or leading from a command post. What this means is that there should be a large amount of personal interaction between the scrum master and the rest of his team, as well as a large amount of personal involvement in the actual development process. Some of the things required of the Scrum Master are things that are absolutely imperative to the Agile framework. One of these is the sprint planning. Sprint planning should not be a solo task, however it should be organized and facilitated by the Scrum master. Without this part then it would be largely impossible to actually carry out a sprint, if there are no sprints then Agile framework does not work. However if the scrum master does not keep the sprint short and relatively uncomplex then Agile will fall down again. Conversely, if the sprint is too short or too specific then the framework fails as well. Another very important part for the scrum master is the facilitation of the daily scrums. This is a short meeting with the whole team that is vital to the day to day functioning of the framework. One could look at the daily scrum meeting as like the pendulum in an old clock. The pendulum is incredibly mechanically simple however without it all the more complicated parts would quickly become desynchronized and the clock would cease to function. Although scrum meetings are incredibly simple, non-detail specific and no major decisions are ever made in them, they are however completely integral to the process. Daily scrums keep everyone on track. They let everyone know what has been completed and by who, and they create camaraderie within the team unit. Without daily scrums it may be possible to continue with the Agile framework in some way for the short term, but things will quickly spiral into chaos and lost work time. Another important aspect of the scrum master position is the backlog refinement. This is probably better done with some group input but in many cases may be the left to the scrum master alone. Backlog refinement is not as vital as daily scrums and sprint planning but it is quite imperative that it is done well. If backlog refinement is done well then it will increase the efficiency of the team. The other major tasks for this position is the sprint review and the sprint retrospective. From the naming of these tasks it is quite obvious that they are basically post-work assessment, something that is crucial for continuous improvement processes like this framework.

**Product Owner**

To carry on with the rugby analogies, the Product Owner is the scrum half. Their job is to connect the development team with the business team/stakeholders/potential users, as well as disseminate important information across the company. There are a number of things that are useful when engaging with users or stakeholders. Primarily would be an understanding of what it is like to be in their position. I think if the product owner has been on the other side of this process then they will have a much better understanding of what the users and stakeholders really need. Another important skill is listening abilities. The more one appears to be listening then the more someone else will tell oneself. This is an important skill in sales and marketing that plays into the human psychological traits. If a human feels like they are being understood and carefully listened to then they will subconsciously open up and talk more freely. On top of that a product owner needs to have the very difficult skill of translating normal user/stakeholder language and turning it into developer language. Very rarely will a non-technical person speak in terms or logic befitting the technical jargon of that industry so the product owner will have to reword this into language that is understandable to a developer. The product owner will have to do this in reverse so that he can belay a message from the technical side to the user/stakeholder side as well. Another important part of the product owner is to develop user stories. The user stories will be helpful to the team so that they know what to do. They are simple enough so that the team does not feel creatively hemmed in, but they are clear enough to give a direct objective. They also are good for giving priority, this way the team knows in which order they should complete them. Another incredibly important part is that they give a why. I think it is helpful for the final product and for the continued morale as it gives a clear reason to what they are doing. **Tester**

Under an Agile and Scrum framework, the tester is a lot more included and has to play a much more diverse role than in a traditional framework. The tester under this framework should be a lot more comfortable interacting with other people within the team. The tester should also be comfortable discussing aspects of the project that may not exclusively be about testing. Having the tester involved a lot more deeply in the product will create a better understanding of the product for the tester and from this they can develop better tests to enhance quality.

**Developer**

The developer under this framework is in a similar boat to the tester. Under an Agile framework there is a lot more flexibility required of the developer and the role is significantly more expansive than the similar role under a waterfall framework. The key to success for the developer under this system is communication with lots of different roles within the project. The developer will be better informed about what the user wants. The developer will have a better understanding of the tests they will have to pass. The developer should feel more creatively free to make innovative designs and experiment for greater success. All of these things put together should make the development process significantly faster, better and with less risk.

**Describe how a Scrum-agile approach to the SDLC helped each of the user stories come to completion. Be sure to use specific examples from your experiences.**

The heightened levels of communication inherent in the Scrum-agile approach is integral to the whole process but can be very clearly seen within the user stories. The user/stakeholder interviews are how these user stories are developed. The product owner will sit down with some users and stakeholders to interview them in detail about things that they want in the program. From these interviews the user stories will be developed. The interviews are essentially just boiled down things that the users/stakeholders want. During the interview someone basically said, “as a (user/stakeholder), I want (some stuff they want) because (the reason they want it).” This is essentially what the user stories are. It would be impossible to do it this way without interviewing users/stakeholders. The user stories will be helpful to the team so that they know what to do. They are simple enough so that the team does not feel creatively hemmed in, but they are clear enough to give a direct objective. They also are good for giving priority, this way the team knows in which order they should complete them. Another incredibly important part is that they give a why. I think it is helpful to the final project and to the continued morale as it gives a clear goal.

**Describe how a Scrum-agile approach supported project completion when the project was interrupted and changed direction. Be sure to use specific examples from your experiences.**

Due to the fact that the Scrum-agile approach is so responsive to change, any interruptions or divergence from the original plan is incredibly easy. In one of the homework assignments there was a good example of this. During one of the pretend sprints, the company decided to stay ahead of their competition. To do this they realized that they should be promoting healthy/wellness holiday packages, this meant that some of the user stories would change and the backlog would need to be updated. Under a waterfall approach, most likely everyone involved would have had to stop production, scrap everything, and restart under the new conditions. However with a few adaptions, under the scrum-agile approach, this was made very easy. All that had to happen was that a few adjustments needed to be made to the user stories and a bit of a shuffle to the backlog. There was very little lost time and nothing had to be scrapped. Work continued and it continued in a more productive fashion. This is one of the situations that Scrum-agile really outshines the traditional frameworks.

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

Hello Product Owner,

I am going through and writing test case documents but I need some clarification. Could you give me further details of the items on this list.

* For the filter price story, do we have a filter range pre-decided or do we want the filter range to be detected from our lowest and highest offers at the time?
* For the filter by vacation type, do we want to only filter by the genre of holiday or do we want to also be able to filter by holiday features like “has gym”, “has pool”, “has electric car charger”, etc…?
* For the filtering algorithm, do we want to weigh recent choices higher than older choices?
* For the filtering algorithm, are we considering customer age as a factor in limiting choices, and are there specific age groups that we should write into it?
* For the filtering algorithm, should we heavily weight previous pricing patterns or should we also offer packages outside of the previously bought packages?
* For the filtering algorithm, should vacation type or vacation features be weighed heavier? (eg. Should a customer almost always choosing holidays with a personal bathroom or a customer almost always choosing a cruise holiday be weighed higher)

Please respond as soon as you can.

Thank you,

The tester

This is an example of communication between the tester and the product owner for clarifications on some filtering specifics. Scrum-Agile frequently promotes communication and this is a good example of that. Instead of just making their own decisions, team members are encouraged to get frequent and thorough elucidation. This allows everyone to be better informed and stay very unified to the team. I think this would have been effective because it was quite specific but was only about things that I would need for a specific task. This would allow us to collaborate well whilst at the same time not getting us bogged down in continual communication and no production.

Hello Product Owner and Tester,

I have come up with a list of the things that I would need for the changes and the rest of the sprint:

* Can you get me the re-prioritized story board for the sprint as soon as possible?
* Can you send me the updated Story card with the new changes to requirements on them?
* Can you tell me where I will get the data for the top 5 wellness/detox holidays? (e.g. a database, a travel writer who works for SNHU Travel, or just make it up myself)
* Along with the last one, please send along any documentation corresponding to the data to be used.
* I would also like to see the changes to the tests I will need to pass for this.

Thank you,

Developer

This was similar to the last email, but on a broader topic. The information requested in this email would be helpful for collaboration in the bigger picture. Instead of just being about one specific user story change, this is about any changes to the sprint as a whole and how it is best to adapt to them.

**Evaluate the organizational tools and Scrum-agile principles that helped your team be successful. Be sure to reference the Scrum events in relation to the effectiveness of the tools.**

I think the daily scrum meeting is the most important communication practice. I believe it is important from a morale perspective. I think hearing what your team members have completed will bolster personal morale and help oneself feel more capable. I also think it will bolster morale because the other team members will know this person is working hard for them and it will make them worker for him/her. I also think the scrum meeting is the corner stone of the agile framework because it literally starts the day with a lot of communication. This will most likely continue throughout the day. I also like how everyone will decide what they are going to do that day in front of everyone else, this will certainly create openness and transparency. Tools like JIRA and Azure are incredibly helpful for facilitating agile project management. I am going to switch my team from currently using slack to Azure most likely before the next sprint. Slack is an excellent communication tool but I would not say that it is an “agile project-management tool”. Azure looks brilliant because not only can you communicate very easily with it, there are specific tools for making story boards, burn-down charts, etc… It is a bit foolish that we are only using a communication tool for development that is about as purpose build as WhatsApp is. I think purpose build Agile software development tools are incredibly helpful for maintaining the Agile framework within a company. I think they are probably even more helpful when they are used to help the adoption and implementation of the Agile-Scrum framework. These types of tools can be a great scaffolding whilst everyone is trying new ways of doing something that should ease the adoption.

**Assess the effectiveness of the Scrum-agile approach for the SNHU Travel project. Be sure to address each of the following:**

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

**Pros**

* Complicated projects are broken down into easier smaller tasks
* Small tasks allow for quick and efficient releases
* Quick and efficient releases same time and money
* Clear communication allows for a more unified effort across the company
* There are several points for customer/stakeholder feed back and the framework is highly adaptive to change with short sprints so the ideal product can be made for the project.
* Code is tested much more frequently so issues can be made apparent very early and be solved with minimal lost time and money.

**Cons**

* Due to the flexibility of the framework, there may be a tendency for the scope to grow as the project extends
* The framework falls down a bit if there are an enormous number of people involved or the people involved are very inexperienced.
* They framework requires a mental “buy-in”. The people involved cannot just expect the framework to happen by magic, if they do not actively work it then it will fail.
* Teams that change members a lot will struggle to be consistent under this framework, as it requires some manner of group understanding.
  + **Determine whether or not a Scrum-agile approach was the best approach for the SNHU Travel development project.**

I think Scrum-agile is the ideal approach for this. This project had many aspects of the things required to make the process work and very little of those that are potential risks. It was a project that could be broken down easily. The team was small enough to be closely knit but large enough to be productive. As well as, there was ample ability to connect directly with stakeholders and users for feedback. The only possible negative was that obviously the students working on the teams were not experienced and therefore there may be some risk inherent within the framework because of this. I think this would have been an acceptable risk. I would not recommend any other framework for this project.