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CS250

**CS250 Final Project**

When recollecting the different roles of the Scrum-agile team contributing to the SNHU Travel project, it is apparent how important communication, collaboration, and teamwork are to the overall success of the team and project. As we learned, the Scrum-agile Team is comprised of three different roles including the product owner, Scrum master, and developers. The developer role is made up of testers and developers. As we worked through different aspects of the project, we would view a virtual meeting between the product owner and the team. The product owner would meet with the stakeholders and communicate their expectations with the team. We saw a change in direction when the stakeholders decided they would like to have SNHU Travel focus more on detox and wellness destinations. This was communicated to the team by the product owner and the team was able to address their concerns with the product owner and communicate amongst each other to plan the best way to make the required adjustments to the project. The product owner is also responsible for setting the product vision for the team, ensuring they stay focused on meeting that vision, and managing the product backlog. Next, we have the Scrum master role. The Scrum master is responsible facilitating daily Scrum meetings, leading spring planning meetings, conducting retrospective reviews, managing timelines, and resolving problems and coaching team members. During the first couple weeks of the course, we watched an animation of a Scrum master conducting a daily Scrum meeting. We could see how the meeting was at the same time every day, the Scrum master opened the meeting asking each team member three key questions, and how she managed the overall communication of the team throughout the meeting. We also saw another Scrum master during the animations of the SNHU Travel project. Lastly, we have the developers who develop and test the product. The developers help with sprint planning and goal setting, utilize their expertise to design, program, and improve products, and test products. We saw communication between the product owner and development team with the SNHU Travel project when user stories and test cases were created. The Product Owner would create the user stories and communicate them down to the testers who would then make test cases for the developers out of them. Teamwork and solid communication between testers and developers is key to creating a quality product. It is important that the testers work with developers when the test cases are being used to develop a product to ensure the developer know how and what to develop to meet the requirements of the test case. The high level of collaboration and communication between these roles during the SNHU Travel project was a major factor in the success of the project. There was no single leader bossing the team around. The team knew their roles and how to effectively communicate and collaborate through meetings and planning with other team members. All of this led to a quality product in the end that met all expectations.

When considering the SDLC and how the Scrum-agile approach helped each of the user stories come to completion the constant communication between the product owner and the stakeholders to create the user stories for the team to work on. When considering waterfall there is barely any communication between the team working on the project and the stakeholders after an agreement is met at the beginning of the project. With the SNHU Travel project we saw an animation of the project owner meeting with stakeholders and we were task to act as if we were the project owner and create user stories from the meeting. This is an agile approach to the SDLC. A waterfall approach would not have these meetings take place during the process of working on the project. We then were tasked to take the user stories that we created and act as if we were in the developer/tester role and create test cases. We learned of the importance of the teamwork and communication between product owner, tester, and developer to ensure the user stories would be completed. We also saw the SNHU Travel project be interrupted and take a slight change in direction. If we were working with waterfall this would not happen because the entire vision for the project would have been decided on in the beginning of the project. The changes required would have had to be completed after the project came to full completion. Now with agile, the team was able to meet and discuss the most effective ways to incorporate the new requirements into the project. Once again, this is all because of solid collaboration and communication and because this team can adjust to changes in a more effective way. We saw this when we were in the developer role and had to make changes to the top ten destinations ensuring they were focused on wellness and detox.

Communication and collaboration are key aspects of agile. So being able to communicate clearly and effectively with different team members is important to the overall success of the project. Every role within agile will need to communicate with each other to ensure they do not lose track of the vision of the project. At different points different roles will need to communicate to ensure that they understand fully what is needed to complete there what is expected of them to complete what is necessary for the project. A perfect example of this what when we were creating the test cases and we had to compose an email to the product owner regarding the user stories. Email is just a form of communication amongst the team, but we have seen it as an example twice. The other time was when we had to write emails to the testers and product owner when we were taking on the role of the developer. These emails we created to start communication between developer, tester, and product owner. There is also open communication during Scrum events. This could be in the form of asking questions or even answering the three questions that most Scrum masters like to open the daily scrum with. All of this will promote collaboration amongst the team.

There are many organizational tools and principles that lead to the overall success of the team when considering a Scrum-agile approach. To name a few tools, we have user stories, scrum boards, sprint backlogs, and burn down charts. When working on SNHU Travel project, we worked on creating user stories and then developing test cases from those user stories. Going through this process we could see how important communication was during this process, and how this tool can be used from start to finish to develop a higher quality product. User stories played an important role in helping the SNHU Travel project develop a quality product. Scrum boards act as a visual progress meter. It is a go to place for team members to go to see what they have completed and what is expected of them, but also where other team members stand on what they are working on. Scrum boards can also help with distribution of workload amongst team members when they are no sure of what task need to be completed to meet the deadlines. The sprint backlog is created by the team during sprint planning and is adjusted every day during the daily scrum meetings. The sprint backlog is a great way to key everyone informed on what needs to be completed and where they stand on the project. Lastly, we have burn down charts this is where sprint planning is represented graphically in chart form with and x and y axis that shows time remaining in the sprint versus work left to complete the sprint. Some Scrum-agile principles that helped the team produce the best product possible are collaboration, self-organization, value-based prioritization, iterative development. During the process of working on the SNHU Travel project we were part of and saw the team collaborate on different occasions. When taking on different roles this collaboration was a key factor in my success in helping the team produce the best product possible. Self-organization is important for any project, but extremely important when considering a Scrum-agile approach. Team members answer to each other not a singular leader and to be able to be part of a team like this you must be good at self-organization. Value-based prioritization consist of organizing and prioritizing task focusing on their value and how the task will need to be completed. Last, we have iterative development as part of the team taking on the developer role this was on full display when the team had to change gears and focus on adjusting the project to focus more on detox and wellness. Without the acceptance and understanding by team members that the project may at a certain time need to change direction could create frustration and lower moral and effect the overall quality of the finished product. All these tools and principles played a big role in the overall success of the team working on the project.

Reflecting on the SNHU Travel project and the overall effectiveness of utilizing a Scrum-agile approach there were a lot of pros. As mentioned previously, principles that come with a Scrum-agile approach helped the team overcome challenges. The team was informed by the project owner during the project that the stakeholders wanted to make changes to what the team was working on. With the team utilizing a Scrum-agile approach they were able to make quick and quality adjustments and were never phased by the changes presented. This is a major pro for a Scrum-agile approach. There are some cons to a Scrum-agile approach. One con is that with this approach team members need to be self-motivated and organized or it could affect the project. This is not something that presented itself with the SNHU Project as every team member seemed to do their part. As we know, not every team will be the same and everyone has their own strengths and weaknesses, so I could see poor performing team members as a potential problem. After reflecting on the SNHU Travel project I do believe the Scrum-agile approach would my preferred approach and the one I see being the most effective. This approach promotes communication, teamwork, self-organization, and collaboration. I believe if the SNHU Travel project was following a Waterfall approach, the final product would end up being different and would cost them more because they would need to go back and make the desired changes after completion. With Waterfall what is defined as completion is what is agreed upon the start of the project. With agile, the team was able to it multiple times, get feedback from entities outside the team and adjust the project to meet what was obtained through the feedback. In the end, I believe this is why a Scrum-agile approach would be the best approach producing the best final product for SNHU Travel.