**ChadaTech Scrum Team Analysis**

Throughout the Scrum team experience, there were many different roles that were explored that ultimately gave an embodiment of what an agile methodology of development would look like. By examining the different roles of a Scrum team, from the Scrum Master, Product Owner, and Development team members, we were able to effectively determine the many pros that this model of development has over a waterfall-based model. These three main roles work in conjunction with one another to deliver a working product quickly by using an agile system that dynamically allocates tasks amongst team members and uses leaders with specific, pre-defined roles to organize the system of development. For example, the role I take in this final demonstration is the Scrum Master, who effectively acts as the bridge between the development team and the product owner. The Scrum Master coaches the development team on what tasks to perform and what functionalities to focus on based on the information they receive from the Product Owner, who has direct communication with the client/user-base. This is what the Product Owner extremely valuable, since they are the sole provider to the team of what is requested or needed by the clients. From my experience of taking on a role as the Product Owner in the SNHU Travel Project, the Product Owner will focus much of their time on creating a product backlog and generating user stories that the development team can then begin to work on. This brings attention to the development team, who is the backbone of the agile process. By using Scrum practices such as daily Scrum meetings and Scrum retrospectives, the development team will be able to stay on tasks and effectively voice any concern they may have on any given tasks, which is extremely important given the constantly changing task list of the agile process.

The benefits of an agile approach to development is directly seen throughout the development of this SNHU Travel Team Project. An example of its efficiency can be seen when ways the development team can effectively estimate their time of completion for certain tasks and then communicate those estimations to the rest of the team. By using methods such as sharing story points and planning poker to estimate how long a specific task may or may not take, the development team can better understand what needs the most attention in any given project. This demonstrates one of the most significant advantages of the agile method compared to the waterfall method which is that if some one task needs to change or suddenly requires more attention, it is much easier to do so and does not require a halt in progress by other moving parts of the project, which is what a waterfall method of development would be more inclined to do.

This sometimes-sudden change in direction of a project could seriously dampen the workflow of a waterfall-based project. We see however, that when sudden changes are introduced to a project in an agile-based method that the different teams and team leaders involved are more equipped to handle that change. During the assignments for the SNHU Travel Team Project, we see an instance where the user stories are slightly different than they were from the week before. Specifically, the test cases that were supplied to the testers one week needed to be revised so that they could better match the new demands of the clients that were obtained through meetings with the client from the Product Owner of the team. Because an agile method is designed to handle sudden changes such as these, progress on the overall project did not need to be halted as the developers could begin focusing on other user stories while testing/development could be finished on the modified stories.

Communication is a vital part of any development process, but especially in an agile-based model. This is because an agile-based model has many moving parts when compared to other models, which means that all of these moving parts must be understood by all members of the Scrum Team. In order to do this, regular practices must be instilled into the routine of the Scrum Team. Using tools such as information radiators, or graphical displays of information that clearly communicates where a team is and what is still needs to be performed, and scrum events, where team members have a chance to voice their successes/holdbacks on any given tasks, the Scrum Team will be much more equipped to handle the vast communication required to pull off agile-based projects.

The primary organizational tools that were effective for the Scrum team was following a routine that kept all of the team members informed on the current status of the project and what was left to be done in the project. Things such as daily Scrum meetings and weekly Scrum reviews were vital to the success in these systems. More specifically, using tools within these regular meetings such as poker cards for task estimation times and information radiators to demonstrate said tasks and their progress can greatly benefit the team by equipping the team with tools they need to focus on tasks and user stories in an efficient manner.

The pros of the agile process can be summarized in that it is a way to efficiently complete many different tasks at a time by being able to dynamically assign responsibilities and focus attention on different tasks as needed. When compared to a waterfall approach, this can in many ways be much more efficient. The cons however are still present in that a waterfall method is much easier for a bigger team to follow and disorganization of the overall team would be much less of a threat. That being said, if managed properly, and agile-based model would be much more efficient on larger projects and could give the clients a working representation of the project much quicker than if a waterfall methodology were to be used.

In the specific case of the SNHU Travel team project, it is recommended to continue using the Scrum Team model of development. This is because this model tremendously helps the organization of a large project with many moving parts such as that of the SNU Travel Team Project. Also, in this project, it wasn’t uncommon for the client to slightly change its user stories and requests, which an agile model is much better equipped to handle. For example, when the test cases need to be revised, a waterfall model could have quickly drawn progress on the project to a halt, whereas focus was able to be shifted to other user stories while the testing team was able to catch up. This is a clear demonstration of how an agile based model can be more effectively implemented when designing a product than a waterfall-based model.