**Final Project**

**ChadaTech Sprint Review and Retrospective Paper**

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**Abstract**

The Scrum-agile approach to the SNHU Travel project was beneficial in producing an exemplary and functional product that satisfied the client. Between the open communication and the flexibility allowed throughout the process, our team was able to work efficiently in completing the project based off the user stories provided to us from the client. There were also Scrum events and tools that were used that boosted our communication and teamwork throughout the project. These helped us to communicate finished portions of the project to the group as well as allow us to communicate any difficulties we came across so changes in the schedule can be made or assistance can be provided from another team member/the Scrum Master whenever needed.

*Keywords: User stories, Scrum Master, Scrum events and tools*

The Scrum Team divided up the responsibilities between multiple roles to limit the amount of workload on each member while also allowing each member to specialize and focus on their responsibilities without being distracted by another role’s tasks. To start we have the Product Owner who oversaw communication with the client (SNHU Travel) throughout the development process. The Product Owner is responsible for creating the Product Backlog where the user stories (specifications from the client on what they want their product to be able to do) are created and then sent to the team for development. The stories would be categorized by size and importance and once the team looked them over, if there were any questions or discrepancies regarding the stories, the team would then talk with the Product Owner to for either answers or to communicate with SNHU Travel about the discrepancies.

During development, the product owner came to the team and notified them that SNHU Travel wanted to add a user story for them to accomplish. This user story asked for the developers to turn the Top 5 Destinations List into a Top 5 Destination Slide Show. SNHU Travel also wanted the Top 5 list to reflect the best detox/wellness vacation spots instead of just a broad vacation list. In response, the team asked the Product Owner if SNHU Travel provided the vacation spots they wanted to be featured in the list with whatever description(s) they wanted to use.

The Scrum Master oversaw directing the team towards finishing the project by helping set goals for sprints throughout. For example, the Scrum Master helped the team decide what user stories could be completed with the team that is currently present as well as helped deciding whether the stories were possible to complete before the final product deadline. They also set up Daily Scrums for the team to meet together and discuss the progress that has been made so far by each individual/team, and if there is any assistance that is needed. They were also adept in all aspects of the project and on what each team was working on so that when the Product Owner would check out the status of the project for the client, the Scrum Master knows where every group is at and what is going on with the project.

Then there are the developers and the testers who are both in charge of making sure that the final deliverable for the client is both functional and has the features that were requested in the user stories. Whenever there were any confusions on what a user story meant or on how it was supposed to be done, these people would talk with the Scrum Master/Product Owner to figure out how to best accomplish the story.

The agile approach to the Software Development Life Cycle calls for separating portions of the project into smaller subsections called sprints, where each sprint will have a finished product ready and presentable to the client before the team moves onto the next section (sprint). Within these subsections, there is a smaller scale SDLC that takes place for each individual sprint where the team starts off with the planning phase and then eventually gets to the testing phase where the final product (of that phase) is shown to the client for approval before continuing to the next sprint. A situation where this approach significantly helped in the completion of a user story was when the team finished up designing the top 5 page and then connecting a hyperlink to the list from the main site. The developers finished the software and had it tested, then once it was shown to the client they changed their mind from having the page displayed as a list to instead as a slideshow and for the vacations to be centered around wellness/detox rather than a general vacation. If this change would have been made later on in the project when the website would have been nearly fully updated, it would have taken longer for the developers to go back and make the changes requested. This in turn would end up pushing back the date that the final deliverable would be ready for the client.

Another important aspect of the Scrum process that helped to complete each of the user stories is how the Scrum methodology is very agile and flexible. In this sense, if a change needed to be made in development or in a user story, the agile methodology allows for the team to adjust current and future sprints to be able to accommodate whatever the adjustment is. For example, when the Product Owner came to the team and stated that the client wanted to modify the Top 5 List to be a slideshow rather than a list format, the team was concerned about how that would affect the development timeline. The Product Owner then said that they would go and adjust the user story timelines to account for this change, this way the developers can have enough time to make the adjustments to the site and still be able to finish the project on time for the client.

Communication was continually active in our group, starting with the daily Scrum’s that we had. Those meetings were a perfect opportunity for us to hear about the progress the rest of our team was making and to provide insight into any difficulties a team might have come across the previous day. For example, our developers stated that they were having a hard time in trying format the Top 5 List to be consistent and stylish (before the switch was made to the slideshow format). During a Scrum Meeting, the developers brought it to the attention of the rest of the group which then allowed the Scrum Master to decide whether he would be able to solve the issue or if there was another group member better equipped to help solve this.

This helped to encourage the entire team to be more open in communication about there status throughout the project because it showed that we were all there to help in any way that we can. This also showed the kind of leadership the Scrum Master was exhibiting by being able to recognize that he may not even have the best answers for all of the problems. Instead, the Scrum Master knows his team well enough to be able to put the best person in the gap to keep the project moving with the least number of hiccups in the process as possible. But most importantly, there was no judgement on the difficulties being experienced by our peers, which further encouraged team members to explain when they have succeeded but also when they may have failed.

There were several tools that we used that made collaboration and communicating with each other easier for us no matter where one of us was at. The tool we used for sharing code and allowing collaboration on certain projects was with GitHub. The ability to branch the repositories into different sections to separate and organize how the repositories look and are connected, while allowing for certain collaborators to edit the work that’s within some sections while another team works on another section was perfect in working on separate parts of the project simultaneously in order to try to finish the project as swiftly and efficiently as possible. Another great tool that we used for the more social aspect of our project was Azure Books. This tool allowed us to message each other regarding any issues we may have come across in development. This tool was used from the testers and developers to the Scrum Master and the Product Owner for full transparency and accessibility to be possible across all levels of the team. Both these tools also allow for remote communication if someone is not in the office for whatever reason, they could still be reached if needed.

With the SNHU Travel project, the Scrum-agile approach was the best approach that we could have taken with the project. Especially with how client-oriented a travel website is with changing the seasonal packages or prices or updating the newest trends to the website. These require the developers to be as flexible as possible throughout the developmental process. This is a pro in the sense that the client will be getting the best product that they can possibly get due to the constant back and forth communication between them and the project team. However, this is a con for the team because any changes could push back the rest of the work they need to complete, also pushing back the final product delivery date. This can turn into a con for the client if it ends up costing more money to pay the team to complete the project than it did before the adjustments were made. The Scrum-agile process also allows for much more communication throughout the team as the development process goes on. While this is a great thing for the team and for completing the project, it does bring up a small risk that the team may get distracted during meetings or on platforms used to communicate about work since this process does require a closer connection between all members of the team. But in the grand scheme of the project and what is best for the team and client(s), with a great Product Owner, a flexible Scrum Master who knows and values their team and the teammates skills, the Scrum-agile approach was the best approach for the SNHU Travel project.