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**CS 250 - SDLC**

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**(Final Project: Sprint Review and Retrospective)**

**Sprint Review - Product Reflection**

Thanks to major contributions from every member of the team, the development of the SNHU Travel application for our client was a definitive success. This success wasn’t limited to the scope of our deliverables to the client, but as an evaluation of the use of the Scrum-agile framework within our own operation. The latter will be discussed mostly in the retrospective section of this document. In terms of the SNHU Travel application, prompt team-stakeholder communication and concise, continuous updates of our artifacts—the product backlog, the sprint backlog and the actual increment—have been the chief contributors to our success.

Initially, our product owner met with the client and a few of their most frequent travel customers in order to establish the requisites and requirements for the travel booking project. Since this was an agile project, determining a clear “definition of done” with the client was a priority. This is due to the cyclical nature of agile. In order to avoid development from becoming a perpetual process of never-ending sprints, criteria for a project “finish line” needed to be established here.

Although the client was primarily focused on the development of a web application, they also expressed great interest in a dedicated mobile app as well. This was an essential part of the product owner’s consultation with them. Additionally, it was important to discuss the features and tools that the client and end-users felt were necessary to include in a travel booking web app and mobile app. Among the key features mentioned were a “top destinations” list, a method of filtering/sorting destination criteria during searches, and a way to have targeted destinations appear first among search results. With these parameters established, we were able to begin refining the product backlog, initializing the sprint backlog, and planning the first sprint.

Our first increment employed a scrolling list user interface that displayed vacation packages in descending order. However, our client decided that a slide show format was more appropriate for the app’s theme. By adopting a slide show interface, images from each package were able to be viewed in a larger aspect without distracting from the call-to-action of booking a vacation. SNHU Travel articulated the importance of allowing customers to easily book vacations. In turn, our product owner conveyed these needed changes to the development team.

Since active testing and client/end-user feedback was occurring throughout each sprint, the delivery of our final increment to the client was able to be finalized much more expediently. Ultimately, the end users were pleased that their requested features were considered and implemented in both the web app and the mobile app. SNHU Travel was pleased that their own clients were satisfied and that the travel booking app was successfully deployed and integrated into their business.

Primary “definition of done” criteria for web and mobile app:

* Homepage with top 10 travel destinations shown in a slide show
* “Explore” page with different vacation themes listed
* Search page with sorting and filtering features
* Settings and profile page
* Payment processor with “shopping cart” page

**Sprint Retrospective - Team Reflection**

In addition to re-addressing a few of the project occurrences from the sprint review, this retrospective is primarily intended to examine our team’s dynamic throughout this exploratory Scrum project. An additional objective is to discuss how the use of Scrum-agile compared with our conventional waterfall model of development. Due to the evolving nature of this project’s requirements, the employment of a waterfall model would have yielded limited results. While a satisfactory outcome likely would have still been achieved, the client’s and end users’ expectations would have needed to be reduced, as changes to the initial plans would have been time-consuming, costly or impossible. The biggest concern for our organization is that this effect would ultimately lead to the loss of clients, who would likely scout for other agile-based development firms that could offer more flexibility and faster project completion.

As mentioned in the review, the product owner was instrumental in collecting the requisites and requirements for this project. Throughout the entirety of the project, the product owner did a commendable job of facilitating communication between all parties involved and ensured that the client and end users were privy to updates within the development process. Collecting preliminary user stories for the product backlog was the primary focus in the beginning phase of development. This allowed me—as the Scrum master—to subsequently work with the product owner toward refining the product backlog and its user stories, creating the sprint backlog, and scheduling the initial sprint planning event.

The sprint planning included every member of the Scrum team. This allowed everyone a chance to become acquainted with the project and its requirements—as well as become comfortable with the idea of participating in a Scrum-agile project for the first time. One point of importance here was stressing that some project requirements would evolve as development continued. Prior to this, our developers were accustomed to receiving final requirements, which would be turned into a deliverable product. However, in this case, each increment would continue to be redeveloped until the client’s predetermined “definition of done” was met. Throughout the sprint planning, we established the tasks that the first sprint would attempt to complete and the process of daily scrum meetings. We also a few explored potential communication methods, applications and tools that might be useful throughout the project. To facilitate our remote communication, we decided to adopt Monday.com as a project management tool. As an example of its effectiveness, here is a group message that I was able to send the entire team about our sprint planning meeting:

*“Hello everyone,*

*It’s great to be partaking in this exciting Scrum adventure with all of you. As we’ll be having our very first sprint planning meeting on Thursday morning, I just wanted to reach out and see if anyone has any concerns or ideas to discuss about our first iteration of development. I could have easily emailed everyone here instead. However, as this messaging system is a part of the very app we may be using to create the sprint backlog, it seemed like a good idea to focus on involving fewer moving parts and isolating text communication to a single point. As we’re all new to Scrum here, please let me know if you have any concerns about the upcoming meeting.*

*All the best!*

*Phil”*

While this message may seem bland, it let the team know that there was an easy way to address concerns prior to and after face-to-face meetings in a method directly linked to the project backlogs. This made our actual meetings less stressful for everyone involved, as the fear of missing or forgetting key information wasn’t as prevalent. Also, in addition to being helpful for this type of communication and event planning, Monday.com was vital for product backlog population—namely user stories and epics—and rapport between the product owner and testers.

As our team is already experienced with development in general, it didn’t take much effort to guide the developers toward becoming accustomed to the process of engaging in sprints. Dedicating Wednesday afternoon as a “game day” allowed us to participate in some agile-based board games which gave the team a chance to both decompress and hone our understanding of the Scrum framework. Since the product owner was initially able to get focused prerequisites from the client, there weren’t too many “curveballs” to contend with at the beginning of each sprint. Most of our work was spent improving and expanding existing features, such as the vacation package lists and the price filtering and sorting feature. We did get a demonstration of Scrum’s powerful flexibility when the format of our user interface was requested to be changed from a scrolling list to a slide show. At the time, this didn’t require too much effort. However, this would have been a much bigger task if the app was already fully pre-planned around a scrolling interface format.

The testers in our development team were essential in ensuring that the specifications being worked on were functioning in real-time. Their regression testing also allowed ensured that new development didn’t accidentally interfere with previous work. This allowed us to complete our entire project in 3 weeks. Our last similar project took two months to produce a satisfactory deliverable using the traditional waterfall model. Ultimately, the adoption of Scrum-agile for this project was a major success that exceeded our expectations as a team. The biggest concern with Scrum—and agile frameworks in general—is that it’s incredibly difficult to predict the necessary timeframe and costs within each project. Despite this, I believe that an obscure timeframe and budget is a reasonable trade-off. The benefits outweigh the risks when a model can convincingly demonstrate that it will be much more cost and time efficient than a traditional approach. Our team unanimously and enthusiastically embraces Scrum as a framework for future ChadaTech development projects. My hope is that our entire organization will also be able to experience this level of flexibility within the development and management process.