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**Executive Summary**

The Agile-Scrum methodology is effective when working with client-centric applications, such as the SNHU Travel Website. The Scrum Team, consisting of the Product Owner, Developers, and Scrum Master collectively works together alongside the client stakeholders to communicate project requirements and incorporate changes quickly and effectively. Agile Scrum practices and tools allow the team to understand the project as it moves along the development timeline, as well as incorporate the software development life cycle and feedback within a sprint. The Agile Scrum methodology is superior to the waterfall methodologies in this project and should be considered in other user-centric applications.

**Scrum Team**

Different roles are at play for a successful agile Scrum team. These roles work in harmony to facilitate open communication and deliver a quality product to the client base. Christy, our Product Owner, played a pivotal role in understanding and communicating with our client, SNHU Travel. She collaborated with the client to understand and document the requirements of the Travel Website project, including the user stories, which are the focus of the new development. These user stories fell into several categories:

1. ***Historical data.*** This included customization, personalization, and enhancement of a user’s experience on their past travel history and having the website make recommendations based on those metrics.
2. ***Future Recommendations.*** Using data on a person's travel history, the website displays the top travel destinations where they would want to travel.
3. ***Costs and Budgeting.*** Allow the user to specify a budget for a trip and also present “hot deals” on future trips which are based on past trips and budget data.

Christy took these user requirements back to the Scrum Team to collaborate on translating them into technical requirements. The role of the Product Owner is a liaison between the Client and the development team to enable clear communication and design between the two. Without Christy’s communications with the CEO and other client stakeholders, delivering on the client's expectations would be challenging for the development team, and would impact the website's quality.

The Development and Testing team, consisting of Nicole and Brian, was responsible for product development and quality assurance. Nicole, our lead developer, designed a strong website that incorporated the technical requirements agreed upon during the Requirement phase of the software development life cycle (SDLC). The Agile SDLC is an iterative process that gives the development and testing of code constant feedback from the users after each sprint to maximize efficiency and incorporate changes early.

The Scrum Team Tester, Brian, was responsible for ensuring that the user stories (the requirements) were being met during the sprint. Using the Scrum communication tools, such as Daily Scrum and the sprint reviews, Brian addressed shortcomings with the Scrum team to clarify questions, from either the client’s requirements or from the development team. This involved asking targeted questions and using visual aids to elicit quality feedback from the client to better understand the requirements for testing.

As the Scrum Master for this project, I kept the Scrum Team on track and provided guidance, mentoring, and leadership. I orchestrated meetings and sprints, maintained team organization, and provided direction and focus. The key methods I used to manage the team were:

* ***Sprint Planning.*** The entire team, including the Product Owner, attended this meeting as it identified the overall project goals.
* ***Daily Scrums.*** Recurring 15-minute daily meetings to focus on achievable goals for the day and to encourage team building and communication.
* ***Backlog Refinement.*** A meeting to review the product backlog and prepare the development team for a Sprint Planning session.
* ***Sprint Review.*** The Scrum team and product stakeholders communicated the completion of a sprint and the overall progress of the development. They reflected on the continuous improvement of the Scrum Team.

**SHNU Travel Project Review**

With the Scrum-Agile approach, the Scrum team focused on the user stories of travel personalization, travel recommendations, budgeting, and package deals in separate sprints. These separate sprints worked through the Agile SDLC, providing development, review, and feedback from clients, developers, and users before deployment. This allowed changes to be incorporated quickly, reducing development issues that would have resulted in lost time and productivity. Within the middle of our first sprint, Christy informed the development team of our SNHU Travel client’s changing requirements, resulting in an update to the website design to a slideshow-style format.  Using the Agile SDLC, I immediately scheduled a new Sprint Planning meeting, and the new requirements were set to be developed in the next sprint. With effective communication practices, such as Scrum project meetings, and the use of software development tracking tools, such as JIRA, changing project requirements and development can be effectively managed, documented, and tracked. Using JIRA in this project proved key by allowing Nicole to develop a new set of code which was subsequently tested and assured by Brian in the next sprint.

**Effectiveness of Agile Methodology**

ChadaTech used the Agile SDLC framework as a pilot since the traditional method within our company has predominantly been the Waterfall method. Agile was highly effective for our SNHU Travel client due to its focus on value creation by performing interactive Agile SDLC with constant feedback from our client. In a scenario such as this, where it is a user-focused application, the waterfall methodology could pose a greater risk in costs and client satisfaction, as the feedback would not be as dynamic because of the linear structure inherent in the waterfall approach. The Agile methodology proved to be advantageous in this project because it allowed the client constant project updates and visualization of progress. The Scrum-Agile approach does require additional communication and management both internally and externally, but the risk of delivering an incorrect product is lower than other methodologies. For all the factors and reasons discussed above, the Agile-Scrum methodology is the best approach that ChadaTech could employ.

**Conclusion**

Due to the expanding client base and increasing project demands of ChadaTech, the Agile methodology is poised to serve as a valuable replacement for the traditional Waterfall methodology. Drawing from the successful implementation experience with our SNHU Travel client, the pilot Agile process has demonstrated its effectiveness by prioritizing the client's requirements and integrating them seamlessly throughout the development cycle, while maintaining a smooth flow of the development process with minimal disruptions.