Trevor Brandt

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**Professor Morrison** 

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## **Final Project: Sprint Review and Retrospective**

The development of the SNHU Travel project was conducted using the Scrum-Agile framework, emphasizing collaboration, adaptability, and continuous improvement. Throughout the project, I, playing as different team members, assumed various Scrum roles, engaged in key Agile events, and used essential tools to ensure the project's success. This Sprint Review and Retrospective reflects on the development process by addressing how roles were applied, how user stories were managed, how interruptions were handled, how communication facilitated collaboration, how organizational tools supported development, and how the Scrum-Agile process was evaluated. Each of these aspects highlights key successes and areas for improvement.

The project's success relied heavily on the effective execution of key Scrum roles: Scrum Master, Product Owner, Developers, and Testers. Each role played a unique part in driving the project forward. As the Scrum Master, I guided the team through essential Scrum events such as Sprint Planning, Daily Scrums, Sprint Reviews, and Sprint Retrospectives. I facilitated meetings, resolved roadblocks, and ensured that the team adhered to Scrum principles. For example, during Sprint Planning, I encouraged team discussions on Product Backlog items, clarifying user story requirements and ensuring realistic sprint goals. This approach minimized misunderstandings and enhanced team productivity.

The Product Owner played a critical role in defining the product vision, managing the Product Backlog, and ensuring alignment with business goals. Their prioritization of backlog items ensured that the team worked on high-value features first. For example, when the project's focus shifted toward detox and wellness vacations, the Product Owner quickly updated user stories and acceptance criteria, enabling the team to adjust tasks effectively. Developers were responsible for implementing user stories and delivering functional product increments. They collaborated closely with Testers to ensure the correct implementation of features. An example of this collaboration involved building a personalized travel recommendation feature, where Developers used Tester feedback to refine filters and enhance search accuracy.

Testers played a critical role in maintaining product quality by developing test cases based on acceptance criteria and identifying bugs early in the process. For instance, Testers confirmed that the system generated relevant vacation suggestions based on user preferences, ensuring a high-quality user experience. This collaboration between Testers and Developers minimized post-release issues and supported the project's successful completion.

The Scrum-Agile approach helped streamline the completion of user stories through structured backlog management, sprint planning, and continuous review processes. User stories were the foundation of all development tasks, providing clear, actionable goals that aligned with project objectives. Each user story contained a clear "who," "what," and "why," as well as acceptance criteria that defined success conditions. For example, one user story stated, "As an end user, I want personalized travel recommendations based on my preferences so that I can find the best vacation options quickly." This user story provided developers with a clear feature requirement, while acceptance criteria clarified what needed to be built.

Backlog Refinement sessions further strengthened the process by breaking down large user stories into smaller, manageable tasks. During Sprint Planning, the team selected and prioritized these tasks based on their complexity and business value. This process enabled a continuous delivery cycle where user stories were consistently completed and validated by stakeholders. Sprint Reviews were critical for demonstrating completed user stories to stakeholders, and these events allowed the team to receive timely feedback and adjust priorities accordingly. For example, after presenting the travel filter feature during a Sprint Review, stakeholders suggested adding a "budget range" filter, which was then included in the next sprint backlog.

One of Scrum-Agile's greatest strengths is its ability to adapt to changes and interruptions. This became particularly relevant when the SNHU Travel project's focus shifted to promoting wellness and detox vacations. The team responded by re-prioritizing Product Backlog items to align with the new business goals. The Product Owner adjusted user stories while Developers requested additional feature details through formal email communication. This ensured that the team understood and implemented the changes quickly and efficiently.

An example of this adaptability involved modifying the system's search functionality to prioritize wellness vacation packages. After clarifying user expectations with the Product Owner, Developers restructured the search algorithm, while Testers revised test cases to validate the new functionality. Despite the disruption, the team delivered the updated feature within the sprint timeline. This ability to adapt to changing requirements reflects the flexibility inherent in the Scrum-Agile process.

Effective communication was the backbone of the team's success throughout the project.

The team used several communication methods, including Daily Scrums, formal emails, and

collaborative project management tools. Daily Scrums were short, focused meetings where team members shared updates, identified roadblocks, and coordinated their daily tasks. These meetings ensured team alignment and transparency. For instance, during one Daily Scrum, a Tester raised concerns about incomplete acceptance criteria for a travel recommendation feature. This allowed the team to address the issue immediately, preventing delays.

Formal emails were used for detailed or complex communications that required documentation. For example, when Developers needed clarification on how vacation filters should be displayed, they sent a comprehensive email to the Product Owner requesting detailed acceptance criteria. This structured communication minimized misunderstandings and kept the project on track. Additionally, project management tools such as JIRA played a crucial role in facilitating team communication. JIRA provided real-time updates on task statuses, reducing the need for repetitive meetings and enabling asynchronous collaboration. Visual task boards displayed tasks in progress, completed tasks, and upcoming work, ensuring that all team members stayed informed.

The team also used several organizational tools to maintain productivity and ensure continuous progress. Key tools included task boards, burndown charts, project management software, and centralized documentation repositories. Task boards and Kanban boards were used to track tasks visually. These tools showed task statuses at a glance, fostering accountability and shared responsibility among team members. For example, team members updated task cards as they progressed through development stages, ensuring that everyone was aware of current priorities.

Burndown charts provided an overview of sprint progress by tracking completed tasks versus remaining work. This allowed the team to predict whether sprint goals would be met and

make real-time adjustments if necessary. Documentation repositories stored essential records such as meeting notes, test cases, and project artifacts. Centralized access to these documents reduced confusion and improved cross-functional collaboration.

The Scrum-Agile approach proved highly effective for the SNHU Travel project, offering several advantages while highlighting areas for improvement. The process's greatest strengths included its flexibility, transparency, and continuous feedback mechanism. For example, regular Sprint Reviews facilitated stakeholder feedback and encouraged active involvement, while task boards and burndown charts maintained real-time visibility into project progress. Sprint Retrospectives helped the team refine its processes and increase productivity by identifying areas for improvement after each sprint.

However, the project also faced some challenges, particularly regarding shifting priorities and unclear user stories. Frequent changes required the team to adjust its planning process, while ambiguous requirements occasionally delayed task completion. Despite these challenges, the team successfully adapted by maintaining open communication and leveraging Agile principles to remain productive.

Overall, the Sprint Review and Retrospective revealed that adopting Scrum-Agile principles significantly enhanced team collaboration, transparency, and product quality. Despite occasional challenges related to changing requirements, the iterative development model supported continuous improvement and stakeholder satisfaction. Based on these findings, adopting Scrum-Agile across all ChadaTech development teams is highly recommended. Its structured yet flexible approach supports both technical excellence and business value, making it an ideal framework for future development projects.