**CS 250 Software Development Lifecycle – Module Seven Final Project**

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**Module Seven Final Project Retrospective**

Throughout the SNHU Travel project, I served as the Scrum Master to help guide the team through Agile software development practices. In this role, I acted as a servant leader and facilitated key Scrum events such as Sprint Planning and Daily Standups, promoted collaboration across roles, and helped remove impediments that could slow progress. In Module Two, I observed how Ron, the Scrum Master in the simulation, worked with Christy (Product Owner) and Amanda (Client) to define high-level goals for the product. This emphasized the importance of collaboration between the stakeholders and the team to ensure the client is getting a product that they are satisfied with.

The Product Owner maintained and prioritized the product backlog, ensuring alignment between user stories and business goals. For example, in Module Three, the Product Owner developed user stories based on end-user feedback, which helped ensure the team was delivering practical features that enhanced the user experience. In Module Four, Christy reprioritized stories after a UI change impacted the "Top Five Destinations" feature, showing how backlog refinement enables quick adaptation to updated requirements. She also addressed a change in direction from SNHU Travel’s management team to focus on detox and wellness travel. She deprioritized other backlog features to prioritize this new initiative, ensuring that the team remained on schedule while still delivering features that aligned with the client’s business goals.

The Tester focused on developing effective test cases and revising them as requirements changed. In Module Four, the Tester created and revised test cases after emailing the Product Owner with clarifying questions about user stories. This interaction between the Product Owner and Tester highlighted the importance of open communication and collaboration in an Agile testing environment. When testers are involved early and regularly communicate with the Product Owner and developers, they can ensure that user stories are tested effectively and provide the intended functionality. This method of testing helps identify issues early and allows for continuous delivery of functional features that can be reviewed by clients for timely feedback.

The Developer translated user stories into functional features and emphasized the importance of immediate testing to reduce bugs. Module Five also highlighted how development priorities can shift in response to stakeholder feedback. The Developer revised the development plan to prioritize features with greater stakeholder value, reinforcing the developer’s role in maintaining an adaptive and collaborative process. By collaborating with each role throughout the project, I gained insight into how Agile teams adapt, communicate, and work toward shared goals to meet project objectives.

Adopting a Scrum-Agile approach improved the team’s ability to complete user stories efficiently by focusing on open communication, collaboration, and iterative delivery. Each phase of the user story lifecycle contributed to successful outcomes. In Module Three, the Product Owner created user stories based on end-user feedback and placed them in the product backlog. In Module Four, the Tester developed and revised test cases to match evolving UI requirements, ensuring that stories remained testable. The team also explored estimation practices such as Planning Poker and Story Points to assign appropriate complexity levels to each story. During Module Five, the Developer implemented the prioritized user story focused on detox and wellness travel. The process of completing user stories was supported by a clear definition of "done," which ensured that each story met the agreed-upon criteria before being considered complete.

The project included two notable instances where requirements changed mid-development, and Agile practices helped the team manage those interruptions effectively. In Module Four, the design of the "Top Five Destinations" feature was updated from a scroll page layout to a slideshow format. This required refinement of test cases and adjustments to how the user story would be developed and delivered. The team quickly adapted by revisiting the acceptance criteria and clarifying expectations through communication with the Product Owner. In Module Five, SNHU Travel’s management shifted the project’s focus to emphasize detox and wellness travel in response to emerging market trends. The Product Owner adjusted the backlog by deprioritizing existing stories and introducing new ones aligned with this business goal. As Scrum Master, I helped facilitate the team’s realignment during Sprint Planning, ensuring we stayed within our existing timeline while delivering the most valuable features possible. These mid-project interruptions and how we managed them demonstrate how the Agile methodology supports change through iterative delivery/sprints and effective collaboration.

Effective communication was key to our team’s success, and as Scrum Master, I made it a priority to promote open dialogue and cross-role collaboration. In response to the Product Owner's initial post, I asked clarifying questions about how often backlog refinement sessions should occur and whether they planned to attend all Scrum events. This helped align expectations and ensured smoother planning. I also engaged with the Tester to understand how pairing with developers would work in practice, asking whether pairing should happen throughout the sprint or at key moments. These interactions demonstrated my role as a facilitator and encouraged the team to think more strategically about how we communicate and collaborate.

Throughout the project, I used Agile practices and Scrum principles to maintain organization and transparency. Daily Standups helped find impediments early, promoted transparency, and kept the team focused on sprint goals. Sprint Planning helped the team define realistic goals for the sprint, while Sprint Reviews promoted transparency by allowing the team to present completed work and discuss feedback. While we didn’t use a project management tool during the SNHU Travel project, incorporating a tool like Jira could have enhanced visibility and team coordination. Jira offers features such as Scrum boards, sprint planning tools, backlog management, and real-time reporting, which are especially helpful in maintaining transparency and managing workloads across distributed teams. Using a tool like Jira allows Agile teams to better track progress, address impediments promptly, and ensure that all team members stay aligned to project goals.

The Scrum-Agile approach was very effective for the SNHU Travel project. Using a Waterfall approach on a project like SNHU Travel that had multiple unknowns and changing requirements would have been very difficult and potentially costly. Agile’s pros included improved collaboration, early and consistent feedback, and its adaptability to changing requirements. Sprint events like daily standups, sprint planning, and this review and retrospective encourage regular reflection, which leads to continuous improvement. One potential con with an Agile approach may occur when working with a newly formed team. They may struggle during the Sprint Planning events due to a lack of shared experience. Without a baseline for team velocity or familiarity with each other’s work styles, it can be difficult to accurately estimate how much can be completed within a sprint.

Scrum-Agile was the right choice for the SNHU Travel project. It allowed us to adapt to changing requirements and allowed the team to deliver value in small, manageable increments. This iterative process helped the team continuously refine features based on feedback from stakeholders. A Waterfall approach would have been less effective for this project due to its rigid linear structure, which doesn’t easily accommodate mid-project changes. By serving as the Scrum Master and working closely with the other Scrum roles, I developed a strong understanding of how the Agile approach fosters a collaborative and effective software development environment.