**CS 250 Software Development Lifecycle**

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**Sprint Review and Retrospective**

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Throughout the development of the SNHU Travel Project, implementing the Scrum-Agile framework provided distinct advantages. As Scrum Master, I observed firsthand how open communication among the team, the Scrum Master, and the Product Owner contributed to a seamless workflow. This collaborative approach fostered transparency and ensured that everyone remained aligned with the Product Owner's expectations. Ultimately, adopting Scrum not only facilitated the smooth delivery of the final product but also helped us consistently meet the requirements set forth by the Product Owner.

Throughout the Software Development Lifecycle (SDLC), team members played essential roles in driving the project’s success by communicating effectively, completing assignments, managing blockers, and adhering to timelines. These efforts were facilitated by daily stand-up meetings, which provided a forum for developers and team members to discuss obstacles, such as dependencies or feedback needs, and for the Scrum Master to track tasks, address hurdles, and coordinate with other teams and the Product Owner for updates and new requirements.

The Product Owner contributed user stories reflecting client expectations and desired experiences, which guided the creation of a Definition of Done (DoD) for each goal. This process ensured consistent progress, allowing developers to integrate changes and optimize programming as needed. Tools like Microsoft Azure provided visual aids to track sprints, assignments, and blockers, supporting open and transparent communication across the team.

User stories were analyzed and broken into testable increments, requiring frequent feedback to ensure expectations were consistently met. Establishing clear "Pass" or "Fail" criteria for each story was established so that decisions like choosing a different filtered result like cost limits or vacation package types were made in response to Product Owner input. Developers sought additional requirements regarding image size, slide descriptions, and other specifics through meetings led by the Scrum Master, which were then implemented for the SNHU Travel Program.

Scrum-Agile methodology proved valuable when the Product Owner requested a demonstration emphasizing "Wellness Travel." This change had necessitated adjustments to the scope and sprint backlog, but thanks to agile refinement, existing user stories and program code required only minor updates to meet the requests. Communication between the Scrum Master and Product Owner helped clarify expectations, with new acceptance criteria and the five "Wellness Travel" categories provided for the demonstration model. This approach preserved the project timeline and minimized unnecessary rework for the development team.

Communication tools like the daily stand-ups, Azure boards, emails, and phone calls kept everyone informed and engaged. Daily stand-ups allowed hurdle sharing and tracking through Azure to be updated and tracked by every team member. Direct communication helped the Scrum Master maintain team alignment and promptly address concerns raised by the Product Owner and team members. This process enabled timely collaboration and ensured that due dates were met by tying requests to specific completion criteria and allowing the Scrum Master to coordinate the completion of hurdles with their team members and others outside of the team as needed.

Managing sprints, tasks, and blockers with Azure boards enhanced project visibility, streamlined workflow, and supported data-driven decision-making. Sprint planning divided the SDLC into manageable segments, providing flexibility for major changes and fostering opportunities for feedback and improvement from the team members and Product Owner. While using Azure boards, team members could comment and review project components, offering valuable insights and open transparency of the development process that helped in refining agile practices for this Agile trial and will help informing future project planning.

The adoption of Scrum-Agile methodologies clearly demonstrated the benefits of rapid feedback, transparency, and adaptability. When communication and clarity are strong, these practices lead to more efficient alignment with Product Owner goals and higher-quality outcomes. However, lack of experience or poor communication can result in missed requirements and increased revisions during the SDLC. For optimal results, both the Product Owner and Scrum Master must be present and engaged during the entire process to provide continuous feedback and alignment with the product goals.

In contrast, Waterfall methodologies progress linearly through five sequential phases, requiring each stage’s completion before advancing. This rigid structure can delay development if hurdles emerge or if the Product Owner requests changes after initial requirements and design. For example, presenting a "Top 10 Destinations" page under Waterfall might preclude adjustments to a slideshow format, and necessitate substantial rework once that input is received. Similarly, requests for new goals like "Wellness Travel" could be slow to be implemented, depending on communication speed and project status.

Ultimately, the Scrum-Agile approach empowered the SNHU Travel Program team to deliver value and maintain quality through ongoing feedback, role clarity, intentional collaboration, and robust tools. These practices fostered a product closely aligned with the Product Owner’s vision and a healthier team culture, underscoring the value of broader Agile adoption organization-wide, with increased investment in Product Owner roles, Agile coaching, and ongoing process improvement.

**References**

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