**CS-250 Final Project**

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CS-250: Software Development Lifecycle

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**Final Project**

**Product Owner (Zachary Locke)**: As the Product Owner, I prioritized the backlog and ensured it was aligned with stakeholder needs. One notable contribution was the development of detailed user profiles that reflected commercial enterprise value. This allowed the team to focus on the most impactful stories. I also facilitated continuous feedback loops with stakeholders, ensuring that their input guided necessary changes in project direction, which helped us stay on track with our evolving goals (Rigby et al., 2016).

**Scrum Master (Tyler Young)**: The Scrum Master ensured the team stayed on task and facilitated our transition to Agile by encouraging daily stand-ups and clear communication. Tyler's emphasis on breaking down silos allowed us to collaborate more effectively. His efforts also minimized disruptions, ensuring each sprint was focused and productive.

**Developer (Brandon Hollada)**: The developers played a significant role in improving communication across the team. For example, Brandon emphasized the importance of delivering high-quality code over increasing velocity. This mindset helped prevent burnout and kept our long-term goals in perspective, ensuring a more stable and maintainable product.

**Tester (Aleksey Ahman)**: Aleksey's implementation of Test-Driven Development (TDD) ensured that our code was constantly checked against our expectations, improving overall quality. This approach caught potential issues early in the development process, reducing the amount of technical debt that could accumulate over time.

Regular backlog refinement meetings allowed us to break down complex features into smaller, and manageable user stories. This made it easier for developers to deliver incremental value in each sprint. We continuously prioritized these stories based on feedback and ensured that the most important features were delivered first. We selected user stories based on team capacity and priority during sprint planning. This was followed by a sprint review where we showcased completed work to stakeholders. This iterative process allowed us to gather feedback early and adjust future sprints based on real-world needs. A, as part of our Agile approach, TDDch, helped ensure that user stories were completed and met the quality expectations. Tests were written before the code, ensuring developers met clear targets and minimizing bugs and rework.

At one point, stakeholders requested a significant change in direction based on new market demands. Thanks to Agile’s iterative nature, we were able to adapt quickly. The product owner reprioritized the backlog, shifting the focus toward features aligned with the new direction. While we had to stop working on some existing user stories, the new focus was quickly communicated to the team, and the next sprint was adapted to address these needs. Daily stand-ups allowed us to address issues as they arose, ensuring interruptions did not derail the entire sprint. Retrospectives at the end of each sprint helped us learn from interruptions and refine our processes, improving our ability to handle unforeseen changes. Although setting sprint goals is crucial, we maintained flexibility when new information arose. For example, when a critical bug was discovered that threatened a project’s deadline, the development team immediately re-prioritized the sprint to address the problem without losing set goals (Cohn, 2010).

Effective communication and the use of organizational tools were essential contributors to the success of our Scrum-Agile team. Through direct communication with team members, such as acknowledging and building on ideas shared by developers, I fostered an open environment that encouraged collaboration. Team-wide discussions emphasizing best practices like Test-Driven Development (TDD) and daily scrums helped align the team around shared goals, promoting technical excellence and teamwork (Sutherland & Schwaber, 2013).

Organizational tools like Jira were essential in managing the product backlog and tracking progress. These tools allowed us to break down extensive features into smaller tasks, streamline sprint planning, and ensure transparency across the team. Daily scrums provided consistent updates and visibility, reducing miscommunication and enabling quick problem-solving. Retrospectives at the end of each sprint encouraged continuous improvement by allowing the team to reflect on performance and adjust processes for future sprints (Atlassian, 2023).

By combining effective communication strategies with the right tools and Scrum-Agile principles, our team could stay organized, adapt to changes, and continuously improve. Practices like pair programming and TDD maintained high code quality, leading to smoother sprint reviews and higher stakeholder satisfaction. Ultimately, this approach ensured we remained focused and collaborative throughout the project.

While working on the SNHU Travel project, our team recognized how crucial it is to adapt to change. The travel enterprise constantly evolves, modifying marketplace needs, consumer alternatives, and guidelines. This flexibility allowed us to regulate our technique and retain to satisfy stakeholder expectancies. The Scrum-Agile methodology enabled us to work iteratively, making it possible to refine the product as we progressed. This was especially valuable when unexpected new information or requirements emerged. Instead of adhering to a rigid schedule, we prioritized backlog changes and adjusted our approach for the next sprint. This flexibility aligned our efforts with the real needs of the business and ensured that we consistently worked on what mattered most.

For instance, our team could quickly respond when a stakeholder requested a new product or changes in priorities without much hesitation. If we had used the traditional waterfall approach, accommodating late changes would have been more challenging, potentially disrupting the project timeline. Ultimately, the flexibility provided by the Scrum-Agile approach was essential to the success of the SNHU Travel project. Responding to change and engaging stakeholders helped us deliver a fair and competitive product in the market (Sutherland & Schwaber, 2013).

Top of Form

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