CS 250 – Software Development Lifecycle Kayla Macklin
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7-1 Final Project

As the Scrum Master for the SNHU Travel application development project, I was able to lead my team through the software development life cycle by using the Scrum-Agile Methodology. This retrospective looks back on how our team performed, how well Agile principles worked, and the lessons we learned during and throughout the project. Moving from a traditional waterfall method to an Agile framework brought both challenges and opportunities, ultimately showing the benefits of iterative development and teamwork across various functions.

Throughout the project every Scrum role was essential in pushing progress and maintaining quality. As the Product Owner, I focused on the backlog and made sure that user stories matched SNHU Travel's business objectives. For instance, when we worked on the itinerary customization feature, the Product Owner collaborated closely with stakeholders to set acceptance criteria and clarify user requirements. As a Developer, I was involved in coding and testing the booking module, working together with other team members during daily stand-ups to tackle technical challenges. The Scrum Master role, which I took on during this retrospective, included leading sprint planning, reviews, and retrospectives, as well as removing obstacles that slowed down progress. When these roles are performed well, they create a rhythm of accountability and transparency that keeps the team focused and productive.

The Scrum-Agile method played a key role in finishing user stories effectively. By dividing the project into smaller sprints, we could provide incremental value and respond to changing needs. For example, the user story about integrating third-party travel API's was pretty unclear at first. During our sprint planning, we clarified the story, estimated the effort needed and

assigned tasks. Daily stand-up meetings helped us monitor our progress and make adjustments to our workloads. At the end of the sprint, we held a demo to present the working integration, getting instant feedback from stakeholders. This repetitive process made sure that user stories were not just completed but also met client expectations.

Halfway through the development process, SNHU Travel asked us to change out focus from desktop to a mobile-first design because of new market trends. If we had been using a waterfall method, this shift would have led to major delays and extra work. But thanks to the Scrum-Agile framework, we were able to change direction quickly. We took another look at the backlog, prioritized the user stories related to mobile, and modified our sprint goals. The adaptability of Agile helped us manage the change without throwing off the project timeline. This situation showed how Agile can effectively deal with interruptions and adjust to the changing needs of clients.

Clear communication was key to our success. Daily stand-up meetings encouraged open discussion and fast problem-solving. For instance, when a developer found a bug in the payment gateway, they brought it up during the stand-up, and another team member suggested a fix based on their past experience. Additionally, we utilized tools like Slack and Jira to keep communication flowing even when we weren't all together and to monitor our progress. These platforms enable us to share updates, comment on tasks, and keep everyone in the loop. The mix of real-time and delayed communication made sure that everyone stayed informed and involved, fostering a team-oriented atmosphere.

A variety of organixational tools and Scrum events played a key role in boosting our team's effectiveness. Jira was crucial for handling the product backlog, planning sprints, and

keeping track of user stories. It gave us a clear visual of our progress and helped pinpoint any bottlenecks. During sprint planning sessions, we were able to establish achievable goals and assign tasks according to the team's capacity. Sprint reviews provided a chance to showcase our completed work and receive feedback, while retrospectives promoted reflection and ongoing improvement. These events, rooted in Scrum principles, established a structured yet adaptable workflow that improved both productivity and team spirit.

The Scrum-Agile method turned out to be really effective for the SNHU Travel project. Some of the benefits included better adaptability, quicker feature delivery, and enhanced engagement from stakeholders. The iterative aspect of Agile let us regularly take in feedback and improve our product as we went along. However, the requirement for constant communication and frequent meetings meant we had to be very committed and manage our time well. Also, figuring out the effort needed for user stories was sometimes tough, which caused us to adjust the scope during the sprint. Even with these difficulties, the Agile method was the perfect match for the SNHU Travel project. The fast-paced nature of the travel industry and the changing client needs required a development model that was flexible and responsive. Agile's focus on teamwork, openness, and step-by-step delivery fit these requirements perfectly. The ability to quickly change direction, involve stakeholders throughout the process, and provide working software at the end of each sprint made Agile a much better option than the strict waterfall method.

Heading the SNHU Travel project with the Scrum-Agile method gave me great insights into how useful iterative development and teamwork across different functions can be. The different roles in the Scrum team, finishing user stories, managing interruptions, and using organizational tools all played a part in achieving a successful result. This experience showed me

that Agile is more than just a method; it's a way of thinking that encourages flexibility, teamwork, and ongoing improvement. Given our team's success, I highly suggest the ChadaTech think about moving all development teams to a Scrum-Agile method to improve product quality and team unity.