CS-250-R4773
Professor Mason
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7-1 Final Project Submission

Explain the different methodologies and stages involved in the software development life cycle.

Apply the stages of the software development life cycle within an agile development

environment. Evaluate various software development methodologies and tools.

- Demonstrate how the various roles on your Scrum-agile Team specifically contributed to the success of the SNHU Travel project. Be sure to use specific examples from your experiences.

Team Roles and Contributions

Throughout the SNHU Travel project, each member of our Scrum-agile team played a crucial

role in contributing to its success. As the *Scrum Master*, I facilitated the team's progress,

ensuring that we adhered to Scrum principles and practices. The *Product Owner* prioritized the

backlog, ensuring that the features with the highest business value were implemented first. The

Developer was responsible for implementing the user stories, while the *Tester* ensured that the

software met the specified requirements through thorough testing.

One specific example of effective collaboration was during Sprint Planning, where the

Product Owner and Developers worked closely to refine and estimate the user stories. The clear

communication between these roles ensured that the team had a shared understanding of the

work to be done, what to prioritize, leading to a successful sprint.

- Describe how a Scrum-agile approach to the SDLC helped each of the user stories come to completion. Be sure to use specific examples from your experiences.

Scrum-agile Approach and User Story Completion

The Scrum-agile approach was instrumental in helping each user story come to completion. By breaking down the project into manageable chunks (called sprints), we were able to focus on delivering incremental value to SNHU Travel. Daily stand-up meetings kept us aligned and allowed us to address any issues or roadblocks promptly.

During one sprint, we encountered a roadblock where the original approach to implementing a feature was not feasible due to *technical constraints* (a compatibility issue with a third-party API involving limitation in the programming language). Through collaboration and quick decision-making in a Sprint Review, we adjusted our approach and were able to complete the user story by the end of the sprint, ensuring that we stayed on track with our overall project timeline.

- Describe how a Scrum-agile approach supported project completion when the project was interrupted and changed direction. Be sure to use specific examples from your experiences.

Handling Project Interruptions and Changes

The Scrum-agile approach supported project completion when the project was interrupted and changed direction. The iterative nature of agile allowed us to adapt to changes in requirements or priorities without significantly impacting our progress. The flexibility of the Scrum framework enabled us to reprioritize the backlog and adjust our sprint goals accordingly.

Midway through the project, SNHU Travel requested additional features that were not initially planned. Specifically, they requested the inclusion of a list of the *top 5 detox/wellness travel destinations*. Using the Scrum framework, we conducted a mid-sprint review and

reprioritized the backlog to accommodate these new requirements. Despite the change in direction, we were able to deliver the additional features on time and within budget.

Effective Communication and Collaboration

Effective communication was a key factor in our team's success. We utilized various communication channels, including *daily stand-up meetings*, Slack, and email, to ensure that everyone was informed and aligned. Clear and concise communication helped us resolve issues quickly and maintain a high level of collaboration throughout the project.

During a sprint, there was a misunderstanding regarding the acceptance criteria for a user story involving *travel budget limits.* Through open communication and clarification during the daily stand-up meeting, we were able to quickly address the issue and make the necessary adjustments, ensuring that the user story was completed as expected.

Organizational Tools and Principles

Several organizational tools and Scrum-agile principles contributed to our team's success. The use of a digital *Kanban board* helped us visualize our workflow and track the progress of each user story. *Daily stand-up meetings* and *sprint retrospectives* provided us with opportunities to reflect on our progress and identify areas for improvement.

During a sprint retrospective, we identified that our daily stand-up meetings were running *longer than expected*. To address this issue, we implemented a timebox for each team member to ensure that the meetings were more efficient and focused.

Effectiveness of the Scrum-agile Approach

Overall, the Scrum-agile approach was highly effective for the SNHU Travel project. The iterative nature of agile allowed us to deliver value to the client incrementally, ensuring that their feedback was incorporated throughout the development process. The flexibility of the Scrum framework *enabled us to adapt to changes* in requirements and priorities, ultimately leading to a successful project delivery.

Pros and Cons of the Scrum-agile Approach

While the Scrum-agile approach was effective for the SNHU Travel project, it also presented some challenges. One of the main pros of the Scrum-agile approach was its *ability to deliver* value to the client quickly and adapt to changes in requirements. However, one of the cons was that it required a *high level of commitment* and collaboration from all team members, which could be challenging to maintain over long periods.

Was the Scrum-agile Approach the Best Approach?

In retrospect, the Scrum-agile approach was the best approach for the SNHU Travel development project. Its iterative nature allowed us to deliver value to the client quickly and adapt to changes in requirements. The flexibility of the Scrum framework enabled us to respond to feedback and prioritize the most important features, ultimately leading to a successful project outcome.