7-1 Final Project: Software Development Life Cycle of the SNHU Travel Project

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[CS-250-16916-M01 Software Development Lifecycle 202](https://learn.snhu.edu/d2l/home/1698507)

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October 21, 2024

1. **Application of Roles**  
   Using the Scrum-Agile methodology has provided valuable insights into the significance of distinct roles within our team. Each role has made a meaningful contribution to the project's progress:

ROLES IN AGILE DEVELOPMENT

**Scrum Master:** The Scrum Master effectively facilitated essential meetings, ensured alignment with Scrum practices, and proactively addressed obstacles that arose. For example, during the Daily Stand-up, the Scrum Master promptly identified a developer who needed access to necessary APIs and facilitated a swift resolution.

**Product Owner:** The Product Owner played a critical role in managing the product backlog, prioritizing user stories based on client feedback, and refining them for clarity and alignment with project objectives. This focus has helped streamline our efforts and clarified our goals.

**Development Team:** The Development Team's diverse expertise in front-end development, back-end programming, and testing has been an asset. The collaborative environment fostered by Scrum has enabled team members to effectively leverage one another’s strengths, enhancing overall productivity.

**Tester**: In the planning phase, we create a test strategy and identify resources. In Test Design, we develop test cases and data. During Test Execution, we run tests, log defects, and prioritize them. We retest fixes and perform Regression Testing to check for issues from new changes. User Acceptance Testing (UAT) lets end users validate the software before launch. Finally, we evaluate the process and generate final reports.

**II. Completion of User Stories**

The Scrum-Agile approach has greatly improved the way we complete user stories. By breaking down user stories into manageable tasks during Sprint Planning sessions, we have facilitated incremental progress:

* + **Example:** In Sprint 1, the user story "As a user, I want to view “TOP 5 DESTINATIONS" was effectively divided into tasks, including researching APIs, designing the user interface, and implementing back-end logic. This decomposition has allowed us to complete the story within the sprint and maintain our momentum.

**III. Management of Interruptions**  
The flexibility of the Agile methodology has proven beneficial when adapting to changing project directions. For instance, when the client requested an additional feature to compare various flight options, the Scrum Master organized a meeting to assess the impact of this request on our current sprint objectives.

* + **Example:** The team collaboratively evaluated the new requirement, adjusted the backlog priorities, and agreed to integrate the feature into the subsequent sprint without impacting ongoing tasks. This proactive approach ensured we remained on track.

**IV. Communication Strategies**  
Effective communication has been instrumental in fostering team collaboration. Daily Stand-ups and tools such as Slack and Jira have significantly contributed to maintaining transparency and clarity.

* + **Example:** During a Daily Stand-up, a developer raised a concern about a potential bottleneck in the testing phase. This immediate communication between he Tester, Developer and Product Owner allowed the team to address the issue proactively, ensuring that the project remained on schedule and supported a smooth workflow.

**V. Organizational Tools**  
The use of tools such as Jira and Lucid Chart has been instrumental in effectively managing the backlog and tracking our progress. Additionally, Scrum events, including Sprint Reviews and Retrospectives, have provided invaluable opportunities for reflection and continuous improvement.

**VI. Evaluation of the Agile Process**

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| **ADVANTAGES** | **CHALLENGES** |
| The Agile methodology has enhanced our adaptability to change, improved team collaboration, and enabled quicker feedback loops. The iterative nature of Scrum allows us to refine our processes continuously based on stakeholder feedback, which is a significant asset. | It is important to remain vigilant about the risks of continuous or uncontrolled growth in the project’s scope. Which is also known as scope creep in project management, it usually arises when changes are not well-managed. Maintaining a high level of team engagement and communication is crucial for overcoming these challenges. |

**VII. Conclusion**

 Overall, the Scrum-Agile approach has proven to be highly effective for the SNHU Travel project. Its flexibility and focus on continuous improvement have positioned it as an excellent alternative to the traditional waterfall model, ultimately leading to greater project success and satisfaction among stakeholders.

## References

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