CS 250 Final Project

Jessica Mikha  
Southern New Hampshire University

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**Review and Reflection: Embracing Different Roles**

In this course, I took on different roles within a Scrum team while we shifted from a waterfall to an Agile framework to create an application for SNHU Travel. Our team comprised a Product Owner, a Scrum Master, and a Development Team with both Developers and Testers. This document aims to evaluate the effectiveness of our Scrum-Agile practices in this project. I'll discuss how these methods influenced the outcome of our final product.

**Product Owner**

As the Product Owner of an Agile project, my role is pivotal as I am the bridge between the client and the Development Team. Beyond typical project management duties, I'm tasked with defining project requirements sourced from client directives and insights gathered through focus groups with end-users. My responsibilities include crafting and prioritizing User Stories to populate the Product Backlog, ultimately guiding the Development Team's approach throughout the project lifecycle.

**Scrum Master**

As the Scrum Master, my role involved aiding the Product Owner in creating and managing the Backlog while ensuring complete transparency across the Scrum team. I served as the intermediary between the Development Team and the Product Owner. After the Product Owner outlined the User Stories, I led Sprint Planning sessions to evaluate which User Stories would be included in the initial Sprint. During these sessions, we utilized the planning poker technique to estimate the effort required for each User Story. Once the Backlog was defined, the project development commenced. I facilitated daily Standup meetings, brief fifteen-minute sessions aimed at reviewing the day's progress. These meetings fostered transparency and enabled the team to address any uncertainties promptly. My objective as the Scrum Master was to support the team and offer guidance in adhering to Agile principles.

**Development Team**

In my capacity as part of the Development Team, I fulfilled dual roles: Developer and Tester. As a Developer, I could structure my code according to industry best practices, allowing for creative expression within the project's framework. Meanwhile, as a Tester, I collaborated with team members to devise comprehensive test cases essential for identifying and addressing potential bugs early in the development cycle. This dual function is pivotal in the Scrum-Agile process, embodying the principle of "Test early, Test often" crucial for iterative development. These roles are fundamentally where the business value of the project is generated.

**Review and retrospective: Completing User Stories**

The Scrum-Agile methodology in the software development life cycle (SDLC) proves invaluable in pinpointing critical functionalities within a project. Effective software planning demands the adept breakdown of complex tasks into manageable increments, ensuring a successful deployment. In the SNHU Travel project, requirements were meticulously gathered from end-users, forming the basis for creating User Stories. These stories serve to encapsulate the essence of these requirements, offering succinct yet comprehensive descriptions understood by both users and Developers. A User Story typically encompasses the who? What? and why?: detailing the intended user, the task to be accomplished, and the value-added functionality driving the requirement.

**Review and Reflection: Managing Disruptions**

Agile methodology inherently embodies adaptability and responsiveness, making it susceptible to changes. Uncertainty is a common aspect of Agile projects. For instance, the shift in focus within the SNHU Travel project towards detox/wellness travel necessitated adjustments to existing developments, showcasing the agility of the team in revising code to meet new requirements.

**Review and Reflection: Effective Communication**

In the context of the SNHU Travel project, requested changes prompted inquiries regarding the functionality of the existing code base. As a Developer, my role involves minimizing redundancy and avoiding introducing new bugs while implementing these changes. This proactive approach is reflected in the communication shared with the Product Owner and Tester, as exemplified in the email excerpt below:

To: Christy (Product Owner); Brian (Tester)   
Cc: Ron (Scrum Master)   
From: Nicole (Developer)   
Subject: Clarification on NEW requirements and testing guidelines…

Hi Christy & Brian,

Following our discussion, I'm initiating the process of updating the code to accommodate the new requirements focusing on detox/wellness travel destinations.  
If the original code base remains unchanged, integrating this new addition should be straightforward. However, Christy, please confirm with the customer whether they prefer the default display to showcase detox/wellness destinations or if they would like users to select this option in their traveler profile. Additionally, Brian, could you provide me with some test case scenarios to incorporate into my coding process?

Thank you,   
Nicole

This email is concise yet comprehensive, effectively restating the requirement while seeking clarification from the Product Owner and additional testing requirements from the Tester. The tone maintains a calm demeanor, indicating a proactive approach rather than resentment toward unexpected changes. Depending on the Product Owner's response, the Tester may create new test cases based on the provided information, fostering a collaborative and transparent environment.

**Review and Reflection: Tools for Organization**

Various tools are available to aid a Scrum team in transitioning to Agile methodology. In the SNHU Travel project, we relied on Azure DevOps and JIRA. Azure DevOps played a crucial role in easing the transition to Agile by facilitating the creation of Product Backlogs, User Stories, and Sprints. On the other hand, JIRA was instrumental in managing individual tasks and tracking bugs. Both tools contributed significantly to maintaining transparency within our distributed team setup. Additionally, our daily Standup meetings were seamlessly conducted remotely using video conferencing platforms like Webex and Skype, offering an alternative to traditional information radiators. These tools provided a convenient visual representation of the project and ensured real-time tracking of activities.

**Review and Reflection: Assessing Agile**

Methodology Adopting Agile in the SNHU Travel project brought advantages and challenges. The project's unpredictable nature made it difficult to anticipate outcomes. Without effective scope control, projects risk deviation and exceeding budgets, a common occurrence in Agile environments where customer needs can shift rapidly. Despite this, the dynamic nature of Agile fosters enhanced product quality and stakeholder engagement. Overall, Agile implementation in the SNHU Travel project proved beneficial, fostering transparency and adaptability while mitigating the risk of overlooking critical customer requirements. Ultimately, it led to delivering a high-quality product that satisfied both the Development Team and the customer.

In conclusion, Agile methodologies are increasingly embraced in project management, yet their suitability varies across projects. A thorough understanding of project requirements before adopting Agile is essential, as is access to crucial resources. Despite the inherent uncertainty, the value-driven approach of Agile outweighs its challenges, ensuring organizational stability and customer satisfaction.

**References**

Cobb, C. G. (2015). The Project Manager's Guide to Mastering Agile: Principles and Practices for an Adaptive Approach. Wiley

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