Project 7-1: Final

Austin M. Mejias

Computer Science Department, Southern New Hampshire University

CS: 250 Software Development Lifecycle

Arthur McWain

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### Introduction

In the ever-evolving field of software development, Agile methodologies, especially Scrum, provide a framework that helps teams adapt to change, enhance collaboration, and deliver high-quality products. In the development of the SNHU Travel application, our team adopted the Scrum-Agile approach. As the Scrum Master, I was responsible for ensuring the smooth execution of the Scrum framework, guiding the team through each Scrum event, and fostering continuous improvement. This paper reflects on the key contributions of various Scrum roles, how user stories were completed, the handling of interruptions, effective communication strategies, and the organizational tools that facilitated the team’s success. Finally, it evaluates the pros and cons of Scrum in the context of the SNHU Travel project.

### 1. **Applying Roles to Contribute to Project Success**

The Scrum-Agile team consists of several distinct roles: the Scrum Master, Product Owner, Development Team, and Tester. Each of these roles contributed significantly to the success of the SNHU Travel project.

* Scrum Master: In my role as the Scrum Master, my job was to make sure the team followed the Scrum process and helped clear any obstacles. In my experience, I had to guide the team through daily updates and assist when challenges came up. For example, if someone had trouble with a task or didn't have the right information, I'd step in to help. I also made sure the team stuck to the Scrum meetings, like the Daily Scrum, which kept everyone aligned.
* Product Owner: The Product Owner is responsible for setting the priorities of the project and making sure the team knows what to focus on. I worked with the Product Owner to ensure that the important tasks were always at the top of the list, much like I do when I assign tickets to my team. The Product Owner helped define clear goals for features, like how a travel banner on the SNHU Travel app should look, ensuring the team had enough details to work with.
* Development Team: The Development Team takes the user stories and builds the features. For example, when we worked on creating the travel deal banner feature for SNHU Travel, they worked together to get it up and running. The Daily Scrums kept everyone on track. When someone faced a problem, we'd discuss it briefly during the meeting, much like how I check in with my techs during daily standups to see how they are handling their tasks.
* Tester: The Tester is key to ensuring that the features work as expected. They make sure the product is bug-free by testing everything. For instance, when the team developed the flight search feature, the Tester caught a mistake with the search filters that could have caused issues for users. Catching this issue early saved time and kept the project moving forward.

### 2. **Completing User Stories**

User stories are central to the Scrum-Agile approach as they define the requirements from a user's perspective. In the SNHU Travel project, user stories were continuously refined and broken down into tasks that could be completed within a sprint.

For example, one user story required the development of a promotional banner that cycles through different travel deals. The user story was defined with clear acceptance criteria: "The banner should display a different deal every 5 seconds and highlight the discounted price in green." The development team worked collaboratively to ensure the banner's functionality matched these criteria, and the Tester validated it through automated tests. With the Product Owner's clear guidance and feedback, we ensured that the user story was completed successfully within the sprint timeline.

### 3. **Handling Interruptions and Changes in Direction**

Scrum’s iterative nature is particularly beneficial in handling interruptions and changes in project direction. In the middle of the project, stakeholders requested a significant change to the user interface for better accessibility, which involved reworking some previously completed features.

Instead of causing delays, the Scrum approach allowed the team to incorporate this change in the next sprint by adding the updated requirements to the product backlog. During **Sprint Planning**, we re-prioritized the backlog to accommodate the new request, and during the **Daily Scrums**, we discussed the status of this adjustment. The development team broke down the task into smaller, manageable chunks and worked collaboratively to meet the revised expectations.

### 4. **Communication and Collaboration**

Effective communication is a key pillar of Scrum, and it was essential to the success of the SNHU Travel project. Throughout the process, I facilitated clear and concise communication among all team members.

One example of effective communication was the frequent use of **Slack** and **Jira** to track progress and ask for clarifications. For instance, if there was a discrepancy in understanding the acceptance criteria of a user story, I would create a thread in Slack to clarify the issue. Additionally, during **Sprint Reviews**, I facilitated communication between the Product Owner and the development team to ensure feedback was incorporated into future sprints. This open line of communication helped the team stay aligned with the goals and expectations of the stakeholders.

A sample communication between myself and the team might look like this:

**Subject**: Clarification on User Story for the Travel Banner Feature

"Hi Team,

I wanted to clarify the requirements for the travel banner feature in the upcoming sprint. The Product Owner has specified that the banner should display a new deal every 5 seconds. Additionally, the discounted price should be highlighted in green and the original price should be crossed out. Could the developer working on this feature confirm their understanding of these criteria?

Let me know if there are any blockers or questions.

Mr. Mejias, Austin M.  
Scrum Master, SNHU Team  
Office Phone: [123-4567]”

This kind of communication fosters a collaborative environment where everyone can express concerns, ask for help, and ensure that the team remains aligned on project goals.

### 5. **Organizational Tools and Scrum Events**

The Scrum framework’s events, such as **Sprint Planning**, **Daily Scrums**, and **Sprint Retrospectives**, were essential in maintaining focus and achieving goals. Tools like **Jira** and **Microsoft Planner Professional** helped track progress and ensure tasks were completed on time.

* **Sprint Planning**: During Sprint Planning, we used Jira to prioritize the backlog and break down user stories into tasks. This ensured that everyone understood their responsibilities and the objectives for the sprint.
* **Daily Scrums**: Tools like Slack and Jira were used for daily check-ins, which kept the team updated on progress and helped resolve blockers quickly.
* **Sprint Review and Retrospective**: At the end of the sprint, the team demonstrated the completed work to stakeholders. The **Retrospective** allowed the team to reflect on what went well and identify areas for improvement. In one retrospective, the team decided to improve the process of refining user stories to ensure they were more detailed before Sprint Planning, which led to smoother sprints in the future.

### 6. **Evaluating the Agile Process for the SNHU Travel Project**

The Scrum-Agile methodology proved to be highly effective for the SNHU Travel project. The main advantages included the ability to:

* Respond quickly to changes in requirements and feedback.
* Deliver incremental progress, allowing stakeholders to see and test features regularly.
* Continuously improve through retrospectives.

However, there were some challenges, such as the initial time required to get everyone accustomed to the Scrum framework and the need for close collaboration to ensure clarity on user stories.

**Pros**:

* Flexibility to adapt to changes quickly.
* Regular feedback from stakeholders, which led to better alignment with business goals.
* Continuous improvement of processes through retrospectives.

**Cons**:

* Initial learning curve for team members unfamiliar with Scrum.
* Coordination challenges when multiple teams were working on different parts of the application simultaneously.

In conclusion, while the Scrum-Agile approach had its challenges, it was the best fit for the SNHU Travel project due to its flexibility, iterative nature, and focus on continuous improvement. By maintaining open communication, using organizational tools effectively, and embracing the Scrum events, the team was able to deliver a high-quality application that met stakeholder expectations and was adaptable to changing requirements.

### References

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References

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