**Sprint Review and Retrospective**

Michael Crevier

Southern New Hampshire University

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Mohammad Habibi

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In developing a travel booking software for the SNHU Travel project, the Scrum-agile method was embraced and utilized to great effect. This approach involved having clearly defined roles, including Product Owner, Scrum Master, Developer and Tester, the final two of which are often full teams of individuals while the Product Owner and Scrum Master were singular positions of leadership. The Scrum-agile approach allowed for effective changes in the direction of the project, facilitated by in-depth and practical communication guided by a well-defined set of evaluative tools and guiding principles. This approach allowed for a fruitful and continuous development process that ultimately yielded success in many ways.

In the process of development for the travel booking software for the SNHU travel project, the Product Owner played a pivotal and organizing role. The Product Owner had the important role of communicating with the stakeholders and the end-users to verify and pass along their experiences and desires concerning the software features to the rest of the Scrum team. The Product Owner prioritized the creation and implementation of user stories, which helped to construct and maintain a product backlog to guide the team in their direction and allowing for iterative adjustments along the way which ensure that the team is aligning with the overall vision and needs as set out by the stakeholders.

In order to best implement the vision set out by the Product Owner, the Scrum Master acted as the organizing position within the Scrum-agile team. The primary goal of the Scrum Master was to facilitate candid, equitable and effective communication between members of the development team with the goal of creating a shared understanding of the direction and needs of the project as a whole. In order to achieve this, the Scrum Master implemented agile methodologies, such as sprints and daily scrums. Daily scrums are short meetings, typically around 15 minutes, held by the team daily, where each member can express their successes, their struggles and their future plans for success. Each member of the SNHU development team was allowed to share their experiences and expectations, with the Scrum Master ensuring that the discussions stay on track, productive and without outside interruption. Sprints are concisely time-boxed periods where the scrum-Agile team sets out to complete a set amount of work, determined by the product backlog and the team scrum meetings. Sprints typically last in the magnitude of a few weeks, allowing the team to work in iterative fashion, incrementally moving forward toward the overall product vision but allowing for relatively quick and adaptive change, if desired by the stakeholders and end users. In this way, the Scrum Master facilitated the exchange of information between the SNHU team while allowing them to self-organize and work effectively towards the collective goal.

The developer is the role within the team that creates the features required to bring the project parameters into reality. The developer of the SNHU team acted on the acceptance criteria set forth by the Product Owner to create features that aligned with the vision of the stakeholders. User stories, created by the Product Owner, were followed by the developer to create each of the features set out in these user stories. When changes were needed, the developer acted to modify features to meet the new parameters, such as creating the Detox and Rehabilitation Destination page requested by the stakeholders. The developer also worked closely with the tester to implement testing regimens designed to ensure that the features created worked in a scalable manner to achieve the desired results.

The tester was responsible for creating test cases for the project, where the features would be tested for robustness, for accuracy within the acceptance criteria and for accuracy within the overall vision. The tester took the acceptance and rejection criteria set forth by the Product Owner and used them to develop effective test cases. The tester also took on any vagueness within the user stories by seeking additional details on how the wireframes provided by the Product Owner were designed so that they might better design test cases. The tester worked closely with the developer to ensure that the developer had access to test cases and procedures, so that code could be tested iteratively and after each new feature was designed, instead of having to wait for the end of the development process to undergo testing and risking inefficiency in development.

The scrum-Agile approach to development allowed for the creation of user stories to focus the development team on high-value features as a top priority, creating an effective creation process that enabled the Product Owner to convey real and evident value to the stakeholders. These user stories helped to keep the development team on track, and also allowed for the creation of testing criteria based on the real-world expectations of the end user. This meant that the project was able to be delivered in smaller, workable chunks that kept the team from getting lost in the weeds in the way that can sometimes happen with less iterative development processes, such as waterfall. The constant collaboration between the Product Owner, Tester and Developer concerning these user stories also helped to allow for continuous adjustments to the project features as needed based on feedback from the stakeholders.

Within the timeline of a project, sometimes changes or alterations must be made based on the needs of the stakeholders or end users, as delivered to the development team by the Product Owner. The daily scrums undergone by the team helped to allow for quick adaptations and redirection based on these changing priorities. The iterative development process allowed for the team to respond quickly and showcasing flexibility to these evolving stakeholder needs to develop or alter features that fit the new bill. An example of this was the stakeholders deciding that detox and rehabilitation destinations were in vogue at the moment and so the SNHU Travel website needed to feature a page allowing users to access a list of top destinations that offered these sorts of wellness services as part of their getaway experience. The existing wireframes provided by the Product Owner were able to be quickly modified by the developer in order to achieve this goal and deliver this feature quickly and efficiently so that the stakeholders could have this high-value feature in prompt manner.

In order to facilitate effective communication between team members, emails were utilized when there was a need to clarify requirements and priorities between the team members and the Product Owner. An example of one of these emails was sent by the Tester to the Product Owner as is featured below:

*Dear Product Owner,*

*As a Product Tester, I've been working on developing test cases for the upcoming features based on the provided user stories. To ensure the precision of our tests, I'm seeking details on the wireframe design of the webpage associated with these features as well as desired parameters for how the website will operate. I find that the initial user stories and the received slide-show style wireframe have fundamental differences and this variance has created some roadblocks when attempting to conform with the project vision. Will the entire website be slideshow based? Will the developer have the opportunity to add selection fields, multiple selections and other filter functions? How will sorting be done with a slideshow based website as opposed to a more traditional list-based application? Having some more detail will contribute to more accurate and effective test case development and expedite the process of development as a whole. I propose discussing this further in our upcoming 15 minute meeting or via email.*

*Thank you for your attention to this matter, and I look forward to your prompt response.*

*- Product Tester*

As can be seen in the email communication, collaboration between the tester and the developer was of paramount concern when communicating with the Product Owner. The wireframes provided by the Product Owner had a fair amount of changes from what the vision shared by the development team had been and in order to effectively work as a team, the tester needed to know what opportunities the developer would have to customize the website while implementing the features showcased in the user stories. The tester needed to know this crucial information in order to design effective test cases based on the features that would be delivered by the developer. This shows how collaboration between each member of the team and the stakeholders was necessary to work in an effectively iterative manner to deliver value quickly and efficiently to the stakeholders.

The success of the SNHU Travel project can be linked to the practical application of Scrum-agile principles and organizational tools. For instance, the iterative development approach was evident in the team's consistent delivery of features, such as a dynamic booking system and personalized travel recommendations, at the end of each Sprint. When the project faced changes in direction, like the introduction of a slideshow-style webpage design or the need for detox-friendly destination vacations, the team quickly adapted by adjusting priorities and refining user stories, showcasing the flexibility inherent in Scrum. Daily scrums and Sprint Retrospectives facilitated open communication and continuous improvement, as seen with the Tester's email requesting details on wireframe designs to ensure accurate test case development. These instances illustrate how Scrum-agile principles were applied in real scenarios, contributing directly to the project's success. Discussion boards, backlogs, project dashboards and communication platforms such as email and slack are also paramount to the success of the scrum-agile system, as they allow for a transparent view of the team’s direction and unique perspectives, while also allowing for discussion, debate and implementation of changes. These tools also allow for the team to have a clear understanding of their progress and what still needs to be done.

The application of the Scrum-agile approach in the SNHU Travel project showcased its effectiveness through iterative development, sustained customer collaboration, and adaptability. Regular incremental deliveries of features at the end of each Sprint allowed for transparent progress updates, keeping stakeholders informed and engaged. The framework's focus on customer engagement facilitated proactive communication, ensuring the product closely matched user expectations. Despite encountering challenges related to unclear user stories, necessitating additional clarification, the approach's ability to adapt to interruptions and changes in direction proved more significant. A waterfall approach would have made things far more difficult in terms of quickly adapting to the changing requirements inherent in a travel website, which needs to be out ahead of the curve when it comes to marketable niche vacation destinations in order to win over new customers and maintain the existing customer base that the SNHU travel company services. In essence, the Scrum-agile approach was well-suited for the dynamic SNHU Travel project, providing a flexible and collaborative environment that supported ongoing enhancements.