**Sprint Review and Retrospective**

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**Scrum-Agile Team Roles**

The Scrum framework prescribes many different roles that come together to create an effective and efficient team that is responsive to the rapidly changing software development process. These roles each come with their own set of responsibilities to ensure that the team is not only cohesive within itself but also communicates and works effectively with other Scrum teams within a project. Scrum teams are composed in a way to maximize the value delivered to their customers in the least amount of time. These roles are discussed individually in more detail below.

***Product Owner***

The product owner acts as the medium between the customers and stakeholders of a project and the development team. Their responsibility is to understand the business ideas of the customers and stakeholders and turn that into technical requirements in the form of user stories. They also prioritize the user stories based on their level of importance and value created (West, n.d.). A good product owner understands both the business side as well as the technical side of a project.

***Scrum Master***

The Scrum master facilitates the use of Scrum-agile practices within a Scrum team. They conduct the team’s use of Scrum practices and ensure that the team follows the appropriate Scrum ideologies. The scrum master makes appropriate adjustments to the team’s Scrum practices maximizing the team’s efficiency under the Scrum framework. A good Scrum master knows which Scrum practices fit best within a project and is very close to each team member to ensure that their team understands how Scrum is working for them.

***Developer***

The development team turns user stories into reality. They are a self-organizing unit and work best when they are in consistent communication with each other to ensure that they are all aware of the status of the project and each team member’s contribution. Each developer is empowered and guided by other developers as well as other Scrum roles rather than being under the full control of their managers, which allows for the development team to be the most productive (West, n.d.).

**How a Scrum-Agile Approach Helps Each User Story Come To Completion**

User stories represent tangible features as explained by an end-customer or user of the product. In sprint planning, user stories are prioritized by the product owner, and the highest-priority stories are assigned to be completed in the current sprint. The development team views this list of user stories, and one or many developers will each have a user story to complete. The iterative process of agile sprints allows for user stories to be completed without having developers working on multiple user stories at a time, which may cause some to never come to full completion. In the SNHU Travel project, daily stand-up meetings and communications via the product backlog and clarification emails allowed the development team to understand what they need to complete.

**How a Scrum-Agile Approach Supported Project Completion When Faced With Changing Requirements**

When planning for a complex project, it is difficult to define every requirement up-front. To account for this, planning for interruptions and changing requirements is a necessity. As the project is in development, new information will be uncovered that changes the plan. One way in which a project could be interrupted is the customer, stakeholders, and product owner notices a change in market conditions calling for a change in the direction of the product being developed. The Scrum-agile approach accounts for this by focusing less on defining each requirement up-front and strictly following a plan, but rather taking an iterative approach to development. At the end of each sprint, a working feature is presented to customers and stakeholders. Sprints are short enough to accommodate the possibility of changing requirements but long enough to produce some working features to present. Due to sprints being a shorter development iteration, sprint planning occurs every couple of weeks, and during sprint planning requirements are defined and selected for the upcoming sprint. This means that changing requirements are much less an interruption in a Scrum-agile approach but are more so built into the framework itself.

**Real Examples of Communication During the SNHU Travel Project**

Throughout the development of the SNHU Travel application, there was consistent communication between the development team and the product owner. Below are a couple of real examples of communication that occurred during the SNHU Travel project between the development team and the product owner.

***Developer Email***

To: Christy and Brian

Subject: Updated feature requirements clarification

Dear Christy and Brian,

In light of the new direction of our product, I would like to ask if this product will be solely committed to detox/wellness vacations, or should the product be adaptable to changing market conditions in the future? Are there any new features that we are thinking of adding to focus on these certain types of vacation packages? What types of new test cases are you thinking about writing after receiving the information about the changes to our product?

This email happened during a time when the direction of the product changed. Communication between the product owner and the developers of the product is one of the most crucial communication pipelines in any Scrum project. The product owner holds the business vision for the product being developed, and the developers bring that business vision to life. This email probed for clarification from the tester of new test cases that the features would need to pass and ensured that the developer understood the new direction of the product.

***Tester Email***

To: Christy

Subject: User stories clarification

Dear Christy,

As I have been developing my tests, I would like to hear more about the exact implementation of the features. Specifically, I am wondering whether this will be a single-page application and if so, how many vacations are we going to have on the website at one time? Is it just a top ten that gets updated specifically for the user, or are there going to be potentially thousands of vacation packages available to users?

This email between the tester and the product owner asked for clarification on more specific technical requirements of the features present in the user stories. Communications like this should happen not only during sprint planning but can also happen throughout the sprint as more user stories begin their development process. Without consistent communication between the product owner and the development team, the outcome of the sprint may not be what the product owner had planned and would not be an optimal way of satisfying the business proposal.

**Organizational Tools and Principles That Facilitated a Successful Scrum-Agile Project**

Organizational tools such as JIRA were a large reason for the success of the SNHU Travel project. Due to many team members being distributed and not available every day for face-to-face communication, JIRA enabled the team to have steady communication. It also allowed the product owner and stakeholders to see the status of the project at any given time to increase the trust between the development team and stakeholders. The Scrum events such as daily stand-up meetings were crucial to the development team’s understanding of the status and role of each developer. Even if the daily stand-up meetings were held via a remote video call, the developers could replace a whiteboard with organizational tools such as JIRA for an accurate overview of the project on a day-to-day basis.

**Effectiveness of the Scrum-Agile Approach for the SNHU Travel Project**

Overall, the Scrum-agile approach used in this project was a very effective way to manage this complex project. It created an open, adaptive environment and empowered the development team to do their best work in a short timeframe. It created room for opportunities to rapidly adjust to the changing vacation booking market. One con to this approach was that there were few requirements that changed throughout the project, so a hybrid waterfall-agile model may have proved slightly more efficient. More of the project could have been planned in advance while still leaving opportunities for responding to the input of the customer and stakeholders.

**References**

West, D. (n.d.). *Agile scrum roles and responsibilities.* Atlassian. https://www.atlassian.com/agile/scrum/roles