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CS-250

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7-1 Final Project

**Sprint Review and Retrospective**

The transition from the traditional Waterfall methodology to the Scrum-Agile approach marked a significant shift in ChadaTech’s software development process. The Waterfall model, with its linear and sequential phases, often led to rigid project structures and limited flexibility (Kaur & Kaur, 2021). To enhance our development process, improve product quality, and foster a more cohesive corporate culture, ChadaTech decided to pilot the Scrum-Agile approach with our team on a project for SNHU Travel. This project aimed to develop an innovative application to help the travel agency expand its client base. In this review and retrospective, we will explore how the various roles within the Scrum team contributed to the project's success, how the iterative nature of Scrum facilitated the completion of user stories, and how Agile principles supported the project through interruptions and changes.

**Applying Roles**

In the Scrum-Agile framework, three primary roles are pivotal to the success of a project: the Product Owner, the Scrum Master, and the Development Team. Each role has distinct responsibilities that contribute to the overall effectiveness of the Scrum process (Schwaber & Sutherland, 2020).

The Product Owner is responsible for defining and prioritizing user stories based on business needs. For instance, in our project for SNHU Travel, the Product Owner prioritized the user story for a booking system, ensuring it was ready for the first sprint. This prioritization allowed the team to focus on a critical feature from the outset, aligning the development process with the client's immediate needs.

The Scrum Master facilitates the Scrum process by organizing and moderating daily stand-ups, sprint planning, and retrospective meetings. An example of the Scrum Master’s contribution is when they helped resolve a blocker that a developer faced while integrating a payment gateway. By addressing this issue promptly, the Scrum Master ensured that the team maintained its momentum and met its sprint goals.

The Development Team implements and tests the features iteratively, working collaboratively to deliver functional software increments. For example, the team completed the user story for user authentication within a sprint, ensuring it was functional and met the client's requirements. This iterative approach allowed the team to receive early feedback and make necessary adjustments quickly.

**Completing User Stories**

The Scrum-Agile approach is inherently iterative, focusing on delivering small, workable pieces of software in each sprint. This methodology emphasizes continuous improvement and frequent feedback, which are crucial for the successful completion of user stories (Kaur & Kaur, 2021).

For example, one of the user stories was, "As a user, I want to search for travel destinations so I can plan my vacation." The team developed the search functionality in a single sprint, received feedback from the Product Owner and stakeholders, and made improvements based on that feedback. This iterative process ensured that the feature was user-friendly and met the client's expectations.

Another user story was, "As a user, I want to book a travel package so I can finalize my travel plans." The team implemented the booking system incrementally, starting with the user interface (UI) and then integrating backend services. By breaking down the user story into manageable tasks and completing them iteratively, the team ensured that each component was thoroughly tested and functional before moving on to the next.

**Handling Interruptions**

One of the significant advantages of the Agile methodology is its flexibility in handling changes and interruptions. The iterative nature of Scrum allows teams to adapt to new requirements without disrupting the overall project flow (Rigby et al., 2018).

Midway through the project, the client requested a new feature for travel insurance. The team added this new user story to the backlog, re-prioritized the tasks, and integrated the feature in subsequent sprints. This adaptability ensured that the client's evolving needs were met without compromising the project's timeline or quality.

**Communication**

Effective communication is a cornerstone of the Scrum framework, facilitated through regular meetings such as daily stand-ups, sprint reviews, and retrospectives (Schwaber & Sutherland, 2020).

During daily stand-ups, team members provide brief updates on their progress, discuss blockers, and outline their plans for the day. For example, a developer might say, “Yesterday, I worked on the payment integration. Today, I’ll be testing it. I need help with the API documentation.” These updates ensure that everyone is aware of the status and can offer support where needed.

Sprint reviews provide an opportunity to demonstrate completed features and gather feedback. For instance, “We completed the destination search feature. Here’s a demo. What do you think about the UI?” This interaction allows the team to make immediate adjustments based on stakeholder feedback.

**Organizational Tools**

The success of a Scrum-Agile team is often supported by effective organizational tools like JIRA, Trello, or Asana. These tools help manage backlogs, sprints, and tasks, providing transparency and facilitating collaboration.

In our project, we used JIRA to track progress, assign tasks, and monitor the sprint backlog. The burndown chart in JIRA was particularly useful for visualizing sprint progress and identifying any deviations from the plan early on. This proactive approach enabled the team to address issues promptly and stay on track.

**Evaluating Agile Process**

The Scrum-Agile approach offers several pros and cons that need to be considered when evaluating its effectiveness for a specific project.

**Pros:**

* Flexibility: The iterative nature allows for changes and new requirements to be integrated seamlessly (Rigby et al., 2018).
* Faster Feedback: Frequent reviews and stakeholder interactions ensure that the project stays aligned with client needs.
* Higher Client Satisfaction: Regular delivery of functional software increases transparency and builds trust with the client (Rigby et al., 2018).

**Cons:**

* Disciplined Team Required: Successful implementation of Scrum requires a team that is disciplined and committed to Agile principles (Schwaber & Sutherland, 2020).
* Initial Learning Curve: Teams transitioning from Waterfall to Agile may face an initial learning curve.
* Potential for Scope Creep: Without strict prioritization and management, there is a risk of scope creep due to the flexibility in accommodating changes (Rigby et al., 2018).

Based on our experience with the SNHU Travel project, the flexibility and iterative feedback were crucial in meeting the client’s needs quickly and effectively. The ability to adapt to new requirements, like the travel insurance feature, without significant disruptions, highlighted the suitability of the Scrum-Agile approach for this project. Overall, Agile proved to be a suitable methodology for the SNHU Travel development project, providing a structured yet flexible framework that facilitated timely and quality deliveries.

**References**

Rigby, D. K., Elk, S., & Berez, S. (2018). Agile at Scale: How to go from a few teams to hundreds. Harvard Business Review. https://hbr.org/2018/05/agile-at-scale

Schwaber, K., & Sutherland, J. (2020). The Scrum Guide. Scrum Alliance. Retrieved from https://www.scrumguides.org/