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**Sprint Review and Retrospective**

**Applying Roles**

In our Scrum-Agile development process of SNHU Travel application, each role of the Scrum-Agile team plays an important part in ensuing the project’s success. These roles being Scrum Master, Product Owner, and the Development team.

**Scrum Master**: The Scrum Master facilitates all Scrum related events such as Daily Standups, Sprint Planning, Sprint Reviews, and Retrospectives. This ensures that the team follows the principles of the Agile methodology and in the process remove any obstacles. An example is that during the second sprint, a developer faced an issue integrating the payment API due to unclear documentation. To resolve this problem, we collaborated with the Product Owner to get more clarification of the requirements, thus ensuring that the task was completed without any delay on delivery time.

**Product Owner**: The Product Owner is the representative of the client’s needs and handles the product backlog. They helped refine the users’ stories, which ensures the requirements are clearly communicated to the development team. An example is how the Product Owner identified the ‘User Booking Confirmation’ feature as a high priority and helped clarify the acceptance criteria during Spring Planning, thus ensuring the team delivers a product that meets the client’s expectations.

**Development Team**: The Development Team works on implementing desired features, performance testing, and delivering parts of the working software until the project is complete. An example is that the development team collaborates to deliver the trip search functionality, categorizing tasks into front design, backend API integration, and testing.

With these roles working together, we can deliver a working version of the SNHU Travel application that meets the client’s expectations.

**Completing User Stories**

The Scrum-Agile approach to the Software Development Life Cycle (SDLC) allows the users’ stories to be broken down into smaller and more manageable tasks as well as helps the team to prioritize the delivery based on what the client’s needs are. For example, the user story “As a user, I want to book a trip so that I can confirm my travel plans” was successfully completed because it was broken down into smaller tasks, design and build form, validate form inputs, integrate the payment API for secure transactions, and display a confirmation message after booking. Focusing on incremental progress allows us to make sure that each subtask was tested and delivered withing the same sprint. This approach allowed the Product Owner to review the work often and provide quick and efficient feedback.

**Handling Interruptions**

The Scrum-Agile provides flexibility and adaptability to the team, which is essential when we are faced with interruptions or requirement changes. Allowing the team to respond quickly to the change in requirements, without putting a hindrance on overall progress. An example where this helped was, halfway through Sprint 2, the client wanted to change the booking form and add a dropdown menu for selecting travel preferences. If the team were using the traditional waterfall model, a late-stage request like this could cause a delay in the product delivery. But with Agile, we were able to adjust and prioritize this change for the next sprint. The team was able to successfully implement it without disrupting other goals set for the sprint. With this ability to adapt it ensures that the project is continuously moving forwards and at the same time meeting the client’s always changing needs.

**Communication**

One of the most important things when working with a team is effective communication as it can be crucial to the success of the project. Various methods can be used to provide clear and concise communication amongst team members.

**Daily Standups** allows the team to share progress, challenges, and goals for the day each morning. An example is that in Sprint 1, a developer raised their concerns about a technical blocker during the standup and the issue was addressed and resolved.

**Sprint Planning** allows everyone to have the same understanding of the user stories and upcoming sprint tasks. An example is during Sprint Planning, we made it a priority to focus on features like ‘Search for Available Trips’ and divide the tasks based on the team’s capacity.

**Collaboration Tools** like Slack can be used to help the team communicate in real-time and speed up the decision-making process, as well as Trello, which can be used to manage the product backlog and help visualize task progress.

These communication tools will allow the team to collaborate clearly across the team, which will in turn help keep the development process continuously moving forward.

**Organization tools**

Tools and Scrum-Agile principles are important to ensure the team’s success in delivering a finished product. Scrum Events and Organizational Tools help the team work in a structured manner as well as provide structure to the project.

**Scrum Events** include Daily Standups, Sprint Reviews, and Retrospectives. **Daily Standups** will keep the team aligned and accountable, **Sprint Reviews** will allow the team to present completed features and get the stakeholders feedback, and **Retrospectives** will provide the chance to reflect on challenges and brainstorm improvements for future sprint goals.

**Organization Tools** include Trello and Slack, which was covered in the Communications section. (**Slack** for real-time communication and **Trello** for managing and tracking progress)

An example of is during Sprint 2, the team used Trello to track the status of tasks like ‘Design trip search functionality,’ providing clear visibility into progress and identifying any delays early on. With this combination of Scrum principles with the proper effective tools, the team can maintain focus and efficiency, while at the same time delivering a high-quality product.

**Evaluating Agile Process**

As beneficial the Scrum-Agile approach is, everything will always have pros and cons.

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| **Pros**  Flexibility and adaptability to continuously changing requirements  Frequent delivery of working software, providing stakeholders feedback  Team collaboration through Scrum Events  Clear communication and alignment of the vision of the final product | **Cons**  Requires frequent communication and active interaction from the Product Owner  Team members are faced with a learning curve when adapting to Agile Principles |

An example of that is that although adapting to Agile was challenging at first, it allows us to handle scope changes effectively, like when the client’s request for travel preferences. In the end I believe that, yes, the Scrum-Agile approach was the best choice for this project. It allowed us to adapt to the client’s needs, deliver features incrementally, and receive continuous feedback.