**CS 250 Final Project**

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The roles and processes in the Scrum-Agile framework played a crucial role in ensuring the success of the SNHU Travel project. Each role contributed uniquely to the efficient progress and collaborative efforts of the team. The Product Owner, Scrum Master, and Development Team demonstrated how structured Agile principles can drive project success.

The Product Owner acted as the voice of the customer by prioritizing user stories and maintaining the product backlog. Their ability to clearly communicate SNHU Travel’s needs allowed the development team to focus on high-value features. For instance, when the agency requested a dynamic trip planning feature, the Product Owner ensured it was prioritized to align with the team’s sprint goals. This role emphasized the importance of aligning team efforts with customer expectations.

The Scrum Master played a vital role by facilitating sprint planning, daily stand-ups, and retrospectives, ensuring that the team stayed on track and removed impediments. When a team member faced difficulties integrating the payment gateway, the Scrum Master’s coordination with external stakeholders provided the necessary resources to resolve the issue. This facilitation ensured a seamless workflow and supported team productivity.

The Development Team consistently delivered functional increments through collaborative efforts and technical expertise. For example, they created a user-friendly interface for booking trips, completing user stories efficiently. Their adaptability and commitment to delivering high-quality outputs showcased the effectiveness of the development process within the Scrum-Agile framework.

The completion of user stories exemplified the benefits of Agile’s structured yet flexible approach. By breaking down requirements into manageable pieces, the team could deliver increments and integrate continuous feedback. For instance, the user story “As a user, I want to search for flights based on budget” was completed within a sprint, leveraging API integration and rigorous testing. This iterative process ensured that the final product met client expectations.

Interruptions during the project highlighted Agile’s adaptability. When the client requested a new feature for personalized travel recommendations, the team reprioritized the backlog and allocated resources efficiently. Through a backlog refinement meeting, the team integrated the feature without compromising the project timeline. This demonstrated the framework’s ability to accommodate changing requirements while maintaining focus on the overall objectives.

Communication was central to the project’s success. Daily stand-ups provided updates on progress and identified blockers, such as a database performance issue that was collaboratively resolved. Sprint planning established clear objectives, such as completing the booking module within two weeks, aligning all team members toward a common goal. Feedback sessions during sprint reviews allowed the team to iterate on the interface design based on client input, improving user satisfaction.

Organizational tools and Scrum events enhanced productivity and collaboration. Jira was used to manage the backlog and track progress through burndown charts, providing visibility into sprint performance. Regularly scheduled events, including retrospectives, identified areas for improvement, such as adopting automated testing tools to enhance efficiency.

The Scrum-Agile approach offered several advantages for the SNHU Travel project. The flexibility to adapt to changing requirements, such as integrating new features, enabled the team to meet evolving clients’ needs. Incremental delivery allowed early feedback, ensuring a high-quality product. Defined roles and regular events fostered collaboration and accountability. However, challenges included the initial learning curve for team members unfamiliar with Agile principles and the resource-intensive nature of frequent meetings and stakeholder engagement.

Despite these challenges, the Scrum-Agile approach proved to be the best choice for this project. Its iterative nature and emphasis on customer feedback ensured a high-quality product that aligned with client requirements. The adaptability of the framework enabled the team to deliver on time while accommodating changes, making it a superior choice compared to traditional models like the waterfall approach.