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Final Project

**Applying Roles:**

With SNHU Travel transitioning from waterfall to agile, the team each had a pivotal role in the success of the Scrum-Agile methodology. We had the Scrum Master(me), the Product Owner, the Developer, and the Tester. This paper is an analysis of our Scrum-Agile and how we applied it to the SNHU Travel project.

The Product Owner is our direct link to the stakeholders and end users. They were responsible for defining the projects' requirements and how they will be implemented. The Product Owner established a clear and organized backlog of user stories for the development team. By prioritizing the backlog, we were able to have effective and efficient sprints. All in all the Product Owner maintained perfect communication between the client and the development team to ensure we delivered the best possible product.

As the Scrum Master it is my responsibility to ensure the Development team’s obstacles are removed and they always have clear expectations for their daily tasks. Constant communication is key for my role, as I worked with the Product Owner and Development team to ensure complete transparency in what needs to be accomplished. I was involved in the creation and maintenance of the product backlog to gain a deeper understanding of it. I had to lead the team in sprint planning to review each of the user stories we were aiming to accomplish during each sprint. I implemented a simple form of T-Shirt sizing so we could better prioritize the user stories and so the developer had a clear plan. I always made sure that each morning before the team got started for the day we would have a quick fifteen minute meeting to go over any questions, and allow the team to highlight what they are accomplishing for the day, and detail any potential shortcomings they may have so we can remedy them. I always made it my goal as Scrum Master to be the best resource my team could have to ensure efficiency and maximize their productivity.

The developer is the one responsible for the actual creation of the functionalities of the project. I gave them creative freedom to accomplish their goals for the day as long as they were using industry best practices. Constant communication between myself and the tester allowed for the developer to produce their best code.

The tester is responsible for testing the code as it is being created to ensure the code satisfies the requirements and does not have any bugs. This role requires collaboration between the team to make sure they are testing for the correct output, while also testing the behavior of the code. The accuracy of the tests is a massively important part of the Agile process.

**Completing User Stories:**

Scrum-Agile is unique in its ability to isolate the important functionalities of the project and highlight them so the team knows where to start. Without prioritization, software planning would become incredibly difficult to accomplish in a timely manner. In Agile, we take the largely complex functionalities and break them down into smaller incremental pieces that allow for easier creation and delivery of the product. With SNHU Travel, the product owner collected user stories from the end-users and stakeholders which created our requirements. The requirements were then used to define functionalities. The developer would create the functionalities which would then be tested and eventually deployed.

**Handling Interruptions:**

The Agile Methodology is named appropriately, Agile is by definition: The ability to move quickly and easily. The methodology is flexible, which allows the project to have a level of change and uncertainty built in. The team adapted incredibly well, especially when SNHU Travel decided to pivot to a new change in their industry. The developer simply edited the code and was able to accommodate this pivot with speed and efficiency.

**Communication:**

The development team CCed me in an email to the Product Owner where they requested there be some communication of how the project may be subject to change before they begin development.

*To: Product Owner*

*Subject: Communication*

*Dear Product Owner,*

*The team and I have been reviewing some of the upcoming changes that are being made to the product. We had some feedback we wanted to relay back to you that would greatly help us with this development.*

*We understand that change is inevitable in projects, but we were hoping at the beginning of each sprint you could let us know how much the project will be altered. It’s tough to estimate and we get that, but we feel if the team has a decent gauge on how likely the project will change then we can run this development a bit smoother.*

*Similarly, if you could communicate the level of flexibility the team has in the project that would be amazing. We would like to know if there are areas where we can take creative liberties, and where the product must follow rigid guidelines.*

*We appreciate your timely response,*

*Development Team*

This email was short, sweet and to the point. I felt the development team did a great job communicating their needs to the product owner. They saw an opportunity for improvement and made the request which is what Agile is about. The Product Owner was then able to communicate in a more effective way that worked with the developer to create a more harmonious and efficient team.

**Organizational Tools:**

The Product Backlog cannot just magically be created, it requires a software tool for it to be created, managed, and organized. The tool we decided on using was Azure DevOps, which allowed the transition to agile to be way smoother. Azure allowed for the Product Owner to create the User Stories and Product Backlog with ease. This also allowed me to plan out our sprints quickly. Azure allowed us to be even more transparent between the team members as everyone could access and view the information in it. Tasks on the individual level needed to be managed differently, which is where JIRA came in handy. It could manage the bugs the tester found, and I was able to assign tasks to each team member so they could have a tool to continuously check if they are on task for the day.

**Evaluating the Agile Process:**

I believe the implementation of Agile for this project was a cause for its timely success. Agile’s ability to grow as the scope grows is an important factor in our success. We had a greater level of transparency, flexibility, and organization. The project was difficult to predict due to the market changing at a moment's notice, but due to Agile we were able to easily pivot the code. We were able to decrease the chance of missing a key functionality through Agile since new User Stories could be added to the backlog when they needed to be. Due to Agile, we were able to deliver a product we can be proud of, and the customer is satisfied with.

In conclusion, I believe the Agile methodology is a great methodology for large, complex projects that are subject to change. It is also important to understand where Scrum-Agile is needed, if a project is simple and won’t delineate much then there is no need to undergo an Agile approach. Besides that, Agile makes it easy for teams to deliver a quality product that satisfies all parties involved, making it an invaluable tool for companies to use.