CS 250 Final Project

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* **Applying Roles**: Demonstrate how the various roles on your Scrum-Agile Team specifically contributed to the success of a project. Use specific examples from your experiences.

The CS 250 Class has allowed me to take a “seat” in the various roles of an Agile team, Product Owner, Scrum master, Developer, and Tester. In this particular scenario, I work for a company named Chada Tech. Currently, the company is in the middle of transitioning from a traditional Waterfall methodology to an Agile one using the Scrum framework. My team was tasked with spearheading the adoption through demonstration by developing an application for a travel agency known as SNHU Travel. They are looking for the application among various other tools to expand their client base, to achieve this goal and demonstrate it is important to explore how the various roles of the team will contribute towards the success of this project.

**Product Owner:** The Product Owner’s primary role in any team is maximizing the value delivered, acting as the bridge between the customer and the development team. That being said, the role contributes by connecting with the customers and understanding their needs and preferences, this often includes stakeholders as well that do not necessarily act as a customer, it is important to gather information for whom you are doing the work so the team can effectively work and add value to a product that will meet customer expectations. The role also contributes by directly supporting the team itself, this can include clarifications of information such as requirements or User Stories, and participating in various agile events like planning, retrospectives, and reviews while also guiding the backlog by prioritizing certain items. Lastly, one of the most important aspects of Agile is communication, Product owners contribute towards success by supporting this practice through applying and getting feedback from various important sources, whether it be through the team or the customers themselves. Acting as the Product Owner, I contributed to the success by clarifying the user stories and customer requirements ensuring that information was properly understood by all team members, this way any confusion would not slow down the development process and the product would meet the customer expectations to the letter.

**Scrum Master:** The Scrum Master’s primary role is to help a team achieve its goals by acting as a coach and influential team member. The role contributes to success through the Scrum master helping to facilitate the team events such as sprint reviews and retrospectives often acting as a guiding mouthpiece during these, working with the Product Owner to both prioritize and organize the backlog items, helping the team navigate and solve problems and adapt to situations as they arise. As a Scrum Master, I helped to organize the backlog, often working with the Product Owner to help streamline this effort, items were removed and changed as communication with the customers continued, and items of most importance were prioritized to the top while the less critical were moved down, doing this ensures that the most important functionalities are put into the application first and meeting deadlines more efficiently.

**Developer:** The Primary Role of the developer is to deliver functional parts of a product at the end of every sprint and ultimately deliver the final product. They contribute to success by along with the rest of the team participating in the scrum events often helping to determine the characteristics of the development plan(Sprint length, Sprint Backlog, etc.) They also work very closely with other developers and testers to build a quality product that is free of bugs and contains the proper functionalities. As a developer, I ensured that the code was free of these bugs and delivered code that met acceptance criteria through these responsibilities.

**Tester:** The Primary role of a tester is to ensure that proper functionality and quality are met within the development of a product or service, the role contributes to success tester much like the rest of the team by participating in the scrum events often helping to guide the developers by providing feedback on their deliverables and helping to determine the characteristics of the development plan similar to the developers themselves. Testers work closely with the developers, within the tester role I helped to establish Test-Driven Development, making sure that test cases were written first before code ensuring that bugs were caught early to help save time and maintain quality.

* **Completing User Stories**: Describe how a Scrum-Agile approach to the software development life cycle (SDLC) helped user stories come to completion. Use specific examples from your experiences.

The Scrum-Agile approach helps complete user stories because it utilizes an incremental development approach often breaking down large tasks into smaller manageable ones, it encourages the use of transparent communication and adaptation with a generous amount of flexibility. In this example, one task was to design user stories for certain functionalities(Mod 3 Assignment), Agile allows one to easily create these through a technique of giving each one a persona but giving a sense of being it allows developers or testers to place themselves in “Its Shoes” almost at the perspective of a user making it easier to come up with an acceptance criteria.

* **Handling Interruptions:** Describe how a Scrum-Agile approach supported project completion when the project was interrupted and changed direction. Use specific examples from your experiences.

An example of how Agile assisted in interruptions was when the customer requirements for SNHU Travel’s application changed. Originally the customer wanted the application to provide the top 5 locations for vacation, but this was changed later on due to popular trends to the top 5 places for detox/relaxation causing the code to be changed. However, because of Agile flexibility, the changes were made without affecting the progress and efficiency of the team dramatically.

* Communication: Demonstrate your ability to communicate effectively with your team by providing samples of your communication. Explain why your examples were effective in their context and how they encouraged collaboration among team members.

During the Project development, some confusion was encountered concerning both the details of the user stories and the change in plan on the customer requirements(mentioned previously) to resolve this obstacle I sent emails out to both the product owner(2 of them) and tester, the first e-mail was to get clarification on how a specific feature enhanced a user experience and provided value, this example is effective because it directly communicates with the involved party and asks the proper questions to get the needed information, having this information allows the team to align with the customers needs and better understand why and how developing this feature is important. The second email does the same however this one was for needing further clarification on the acceptance criteria when the change happened, having this information helps to get all team members on the same page and have a proper understanding of what is required in the product.

Email # 1

“**To: John Doe (Product Owner)”**

**“Subject: Further Clarification on Test Cases “**

**“Hello John, I hope you get this email, as I am developing the test cases for this travel website I ran into an area where I need more clarification to effectively continue accurate testing, specifically detailed information on how each user story’s expected feature will add value.”**

1. **For example, within the “Customized Top 5 List” How does this specific feature enhance user experience or increase overall benefit to the user or business?**
2. **And, for the user story layout can we include this detailed description for all of them?**

**“I feel as though providing a better understanding of how what we work on benefits the user will help with developing more effective test cases and in turn provide a better-quality product also, if we know how we will help people the team as a whole will feel more committed.”**

**“Thank you,”**

**Ryan Erno**

Email # 2

“Example Email”

“Subject: Further clarification on testing feedback

Hello (Product Owner) and (Tester),

To effectively continue development with this new plan I will need some clarification from you both, this being:”

“From the Product Owner: I will need more clarification on our Acceptance Criteria and any changes or additions to the user stories”

“From the Tester: I will need feedback on any of the changes and added features that roll out, get back to me about anything that doesn’t meet the expectations of our client.”

‘Thanks in advance,”

“Ryan Erno(developer)”

* **Organizational Tools:** Evaluate the organizational tools and Scrum-Agile principles that helped your team be successful. Reference the Scrum events in relation to the effectiveness of the tools.

Within this example, an effective tool that helped the team be successful was JIRA, JIRA is a popular project management tool with many features designed to help a Scrum-Agile team be efficient and organized. Some of its features both practice many of the agile principles and some of the typical scrum events such as the Kanban board, not only does this utilize transparency but it substitutes a daily scrum by providing a digital one allowing the team to visualize the work that they have been doing and look ahead to what needs to be done. Another feature meeting this principle was the backlog management feature. It helped the team organize and prioritize the product items that were of the most importance and deliver working software that met customer demands, the Product Owner could also add and remove or even change some of these items as the needs of the project changed, the entire team was able to see these changes and the backlog itself utilizing transparency.

* Evaluating Agile Process: Assess the effectiveness of the Scrum-Agile approach for a specific project. Address each of the following:
* Describe the pros and cons that the Scrum-Agile approach presented during the SNHU Travel project.

Pros: Agile promotes flexibility as part of its core makeup because of this navigating any changes in the process can quickly be adapted, in this example as mentioned before the application requirements changed from top five vacation spots to top 5 places for detox and relaxation, because of its flexibility the team was able to revisit the code and adjust it accordingly without any significant setbacks to development. The other is its promotion of transparency and communication, information is to be distributed among all members of the team and customers because of this navigating any confusion when it comes to requirements is easy for example when clarification is needed on the user stories when the application requirements changed testers and developers reached out to the product owner for answers, since the product owner acts as the bridge between the team and customer the needed information was received.

Cons: While in this example, there weren't many apparent cons, Agile can have some itself. One example that can be given is again the application change. It was difficult to predict a change like this to occur while it didn’t affect the development of the application(not in real life). This could be the case in this methodology. The reprioritization of tasks can lead to delays in developing other features. The other is a difficult change for an inexperienced team to adjust to. Again, while not being real I like to imagine this situation since Chada Tech is trial running an Agile transition with my team it would have been a factor in contributing to any difficulties, it could be a reason for any untimely deliveries, good communication, or many others.

* Determine whether or not a Scrum-Agile approach was the best approach for the SNHU Travel development project.

Overall, I think Agile was a proper approach to this project, there was a case where an unpredictable change occurred, and because of Agile flexibility it allowed for an efficient effort of the team to change it without any delays, communication was another big aspect here, clarification was needed on some of the user stories when the requirements changed. Because it is encouraged in this approach information was shared within an efficient amount of time allowing the team to continue with development without any other hindrance.

Citations

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