**Demonstrate how the various roles on your Scrum-agile Team specifically contributed to the success of the SNHU Travel project. Be sure to use specific examples from your experiences.**

**Scrum Master**: The Scrum Master was able to direct the product the owner to make any concluding amendments to the user stories’ order of progression that was taken into each sprint. They communicated the level of effort that was required to complete the six user stories. Unfortunately, I was not able to determine the size of the team needed to complete the user stories. One individual had to assume four different aspects of the Scrum Team. Going forward, I will speak as if there were four different individuals on my team.

The Scrum Master gave the team an idea of what was going to be completed for the week (basic list view, product backlog, user stories, and test cases) and facilitated daily scrum meetings. Following the recommended format, topics included what was completed the previous work days, intended completions for the day, and considered any obstacles that may be present. This improved communication skills, encouraged swift determinations, and removed any unnecessary subsequent meetings.

We developed a sense of belonging by understanding our specific role during each sprint towards product completion. The Scrum Master effectively enabled the Product Owner to do product backlog grooming. They did not have to remove any user stories that were irrelevant. Alternatively, the Scrum Master did have to oversee adaptation and changes to the user stories when SNHU Travel wanted to change the focus of their website to detox and wellness. This required the user stories to be reprioritized based on stakeholder feedback.

Sprit Reviews were held at the end of each week. We analyzed the performance, productivity, and added value to the working code. Also, we were able to develop an awareness of whether the code created during the sprint satisfied the product requirements. The instructor was a stakeholder and a user. The Scrum Master presented working code to the instructor to discuss advancements to towards completing the SNHU travel project.

Concurrently, sprint retrospectives were conducted at the end of the week. The Scrum master analyzed the basic list view created by the developers, reviewed the collaboration among team members, and oversaw the development of test cases. Also, directed the tester to reformat the test cases based of client changes for the slide show.

**Product Owner**: The Product Owner conducted an audience analysis before engaging with the users and stakeholders. Furthermore, the product owner created personas. The expectations of the users were not the same as the redefined product requirements from SNHU Travel after the switch to detox and wellness. The focus group had an age range between 22 and 65. Unfortunately, the focus group only contained three users. Similarly, the Product Owner should have asked SNHU more questions about the budget and design to promote a stronger awareness of the product requirements.

The Product Owner retained the sole responsibility for managing the product backlog which contained a sorted list of user stories that the development team would work on during each sprint. The backlog was a prioritized high level user story list with six stories. The Product Owner used a systematic technique towards defining requirements. The language used in the user stories was meant to be understood by the developers and the users. Also, the Product Owner engaged in constant communication with the stakeholder and the Scrum Team. Prompt notifications were given the team when changes occurred and the product backlog was reprioritized to align with the company initiatives at SNHU Travel.

**Developer**: The development team was self-organizing, determined the increments of functionality, and retained all of the skills as a team necessary to create a product increment (Overeem, 2016). Acting as a single unit was easy considering the development team was one individual. Initially, the development team was tasked with creating a basic list control view. They had to modify an existing program to fulfill a user story. The user story contained a user number, story name, story size, value statement, and acceptance criteria.

The development team used the action portion and the acceptance criteria to focus on adding business value towards the end of the sprint. The team updated the top five chosen destination list to include: title, a short description, and a small image for each. Additionally, the development team had to add at least one additional customization.

Our development team went above and beyond the requires. The agile methodology promotes “just barely good enough” to meet the requires and any additional effort would have a decreasing rate of return (Overeem, 2016). However, our development team wanted to ensure user acceptance and client satisfaction. The images were sized correctly and symmetrically outputted in a jar file. The background color was changed and a j label with the developer’s name was added to the top. Additionally, the development team liked how the text would appear and disappear whenever the user clicked on a specific destination.

The team did a wonderful job adapting to the changes implemented by SNHU Travel. They were able to update the top five destinations list to a slide show. The slide show contained different locations that encompassed detox and wellness. A j label was added to the top of the slide, the images were sized correctly, the heading and text description colors were changed. Furthermore, the background color of the entire slide (pane, panel, and layout) was one color.

**Tester**: The tester and the development team worked to together in talking responsibility for the code quality. The tests help the development team gain a better understanding of what is needed to satisfy SNHU’s Travel’s needs. Similarly, the tester implemented test driven development which is conducted at a higher level of functionality than test driven development. The tester also implemented concurrent testing when there was any working code available to prevent surprises or inadequacies at the sprint completion.

An example would include making sure the basic list view contained all of the requirement functionality and customizations. The tester was able to identify missing information and/or inadequacies in the user stories. Also, the tester noticed that the users nor the stakeholders mentioned wanting/using a mobile application.

Furthermore, the tester addressed several concerns including the flow of actions (inputs) that the user stories were based on and how the top ten destination list would be incorporated with the user stories. The tester complained about a lack of proper communication between the tester and the product owner. This prompted the tester to write a follow-up email to the product owner requesting additional information about the user stories.

**Describe how a Scrum-agile approach to the SDLC helped each of the user stories come to completion. Be sure to use specific examples from your experiences.**

The creation of the user stories started with the initial client interview. The client introduced themselves (SNHU Travel), stated the goal of the initiative (vacation booking system), and mentioned the time frame (five weeks). The user interview reflected a small sample size of the customer base. Their answers were about features that could be added to enhance their personal experience. Thus, these answers were used in the creation of the user stories. The stories were “intentionally brief and don’t typically provide a detailed description of what is required” (Overeem, 2016).

Great effort was made to create user stories that were independent (reduce bottlenecks), negotiable (placeholder for conversation), valuable (facilitate objective evaluation), estimable (predict effort required), small (code increments), and testable (fulfill the value proposition). The user stories format contained the type of user (the person taking a vacation), what action they want to perform (customized options on the SNHU website), and how this action would benefit them (have a top ten list developed from their profile).

The user stories were sorted in groups of small, medium, and large (1 large, 4 mediums, and 1 small). Prioritization aided the scrum team in determining what stories to take into the sprint. The action portion of the story dictated the added value of the user story and the acceptance criteria provided a metric for comparison during spring reviews. Also, the action portion helped determine the inputs and expected outputs. This reduced the need to write detailed functional specifications.

As mentioned above, the development team used the action portion to focus on adding business value towards the end of the sprint. The agile approach helped each user story come to completion by increasing the overall efficiency of each sprint. It was difficult to develop five distinct user stories, because the suggestions could have been combined into one epic. Most of the functionality required to implement the medium and small user stories was tackled in the large user story. The epic could have been subcategorized into the listed user stories.

This was reflected in the tester email written to the product owner. They mentioned that a user story was an epic that needed to be broken into smaller stories. However, the agile methodology does promote continuous integration. Having smaller user stories enabled product development to be done in increments and actively eliminating redundant code and removing unnecessary functionality. Smaller increments “reduce the feedback cycle making it easier to stay on track” and adapt to stakeholder changes (Ambler, 2022)

**Describe how a Scrum-agile approach supported project completion when the project was interrupted and changed direction. Be sure to use specific examples from your experiences.**

The agile methodology envisions constant communication with the user/stakeholder during the product development life cycle. The product owner conducted a meeting with SNHU Travel. The stakeholder found that detox/wellness vacations would be the next lucrative travel sector. The product owner scheduled a Scrum-agile Team meeting to discuss the changes. The meeting followed the recommended scrum meeting format covering what was previously done, what will be done, and any obstacles that the team may face in the future.

The development team thought the previous work would be scrapped, but the product owner explained that the team would just be focusing on detox and wellness. The development team’s implementation of continuous integration “provides a way of early detection of problems that may occur when individual software developers are working on coding changes” (Overeem, 2016). The tester was able to update the test cases for the new requirements.

Touting that we are an agile team, the product owner effectively communicated to the team that they would have the same deadline. To facilitate the implementation of the change, the product owner deprioritized other stories in the Product Backlog so that we were able to focus on the changes required by SNHU Travel. The “priorities of non-requirement work items” were postponed for negation between the product owner and the development team (Ambler, 2022). The meeting was an example communication, collaboration, and responding to change. Additionally, our team was able to maximize SNHU Travel’s return on investment.

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

**Sample 1**

**Email**:

To: Christy

Subject: Re: User Story Clarification

Dear Christy,

In another email, I mentioned having an opportunity to review the user stories and I am in the process of creating test cases. I downloaded the zip file contained in the email from you. I was able to view the updated slide show. However, I do not have any documentation relating to some of the questions in my previous email. Please provide more clarification for the questions below.

User story one:

* What type of authentication will used for the user login credentials?
* Are we doing a top-five list for a specific type of vacation or will it include all types of vacation packages based on popularity?
* What types of column headers would you like to see on the main SNHU travel web site?
* What types of column header would you like to see on the user profile and update page?

User story two:

* I did not received documentation related to the mobile app. What type of functionality would you like to have on the webpage and the mobile app.
* Will the mobile application be cross platform? Example: Android and/or IOS
* Will the user be able to swipe left and swipe right to view the slide show.

User story three:

* User story three and test cases were developed based on a user wanting to specify the price range. Are we going to allow the user to specify a price range?
* Will the top-five destinations be updated based on selected price range in the user’s profile?
* Will the application provide special deals for the user based on price selected in the user profile?
* Will the deals be provided in a separate column header and/or in the top five list?

Thanks,

Maurice Wesley

**Sample 2**

**Email**:

To: Christy

Cc: Brain

Subject: SNHU Travel Site and User Story Clarification

Dear team members,

I am in the process of developing functional code for the product based on the new requirements expressed by SNHU Travel. I was able to view the updated slide show. However, I do not have any documentation relating to the updated user stories and the deprioritized items in the product backlog. Please provide those items, test cases, and more clarification for the questions below.

User story one:

* Are we doing a top-five list only for detox/wellness vacations or will it include all types of vacation packages based on user profiles?
* What types of column headers and user functionality would you like me to develop on the main SNHU travel web site?
* What types of column headers and user functionality would you like me to develop on the user profile and update page?
* Currently, the slide show does not provide the ability to resize the window of the slide show. Do you want me to update the code with functionality to resize the slide show?

User story two:

* I do not have access to documentation related to the mobile app. What type of functionality would you like me to develop on the webpage and the mobile app?
* Would you like me to code the mobile SNHU application for Android and/or IOS?
* Should I develop functionality to swipe left and swipe right to view the slide show on the mobile app or do you prefer buttons at the button of the slide show?

User story three:

* Would you like for me to develop a program to sort and query the top-five detox/wellness destinations based on selected price range in the user’s profile?
* User story three was developed based on a user wanting to specify the price range. Do you want me to develop functionality to include price on the slide show?
* Should I include functionality that provides special detox/wellness deals for the user based on price selected in the user profile?
* Will the deals be provided in a separate column header and/or in the top five list?

Thanks,

Maurice Wesley

**Prompt 4 Continued**

As required by the prompt, the above samples of email communication demonstrate my ability to communicate effectively with my team members. At its core, communication means to share. It is comprised of the source, a message, a channel, and a receiver. The source in sample one was the tester and the source in sample two was the development team. Both emails conveyed the message that additional information was needed for the team to fully understand the product requirement and develop proper test cases. The channel was emails with consideration to detail, professionalism, and salutations that demonstrate respect. It is recommended that a good email “should get to the point and conclude in three small paragraphs or less” (Ashman, 2018).

All of the aforementioned points can be found in the emails above. More specifically, the first email was addressed to the product owner. It was formatted properly with a subject, a greeting, and asked specific questions about each user story. Some of the questions asked were about authentication, column headers, functionality, mobile user interface, and possible deals available to the user.

The second email from the development team to the product owner contained some of the concerns that were not address in the email from the tester. Conversely, the second sample email was focused on the changes implemented by SNHU Travel. The development team exclaimed in the opening paragraph about not having any documentation relating to the updated user stories and the deprioritized items in the product backlog.

A slide show was provided from the product owner. However, the slide show did not align with the user stories and the previous test cases. The development team covered each user story individually to ensure a response was given relative to the story in question. They did not know how the top-five live would be impacted by switch to detox/wellness versus the user profiles mentioned at the beginning of the project. The sample email was needed to answer the product owner’s question during the Scrum-team meeting concerning what can get be done in the time we had left. The development team did not know what they had to do. Thus, the emails demonstrate effective collaboration among the Scrum team.

**Evaluate the organizational tools and Scrum-agile principles that helped your team be successful. Be sure to reference the Scrum events in relation to the effectiveness of the tools.**

The agile manifesto focuses on individuals and interactions over tools. However, project-management tools and organizational tools still play a vital part in the software development life cycle. The product backlog has to be organized and well defined before sprint planning. Azure Boards would have been a great organizational tool to use that facilitates openness and transparency.

An excel spreadsheet was utilized to create, maintain, and adjust the product backlog. It did not provide real-time changes made by the product owner. However, the backlog spreadsheet was distributed through email. The development team was able to manage the user story functionality and the tester created test cases using the excel spreadsheet format.

Estimation is an essential aspect of sprint planning. A great tool to use during sprint planning is planning poker. Based on the Fibonacci sequence, story points are assigned a number between 0 and 13. It is recommended that the story points do not exceed 13. The team should reduce the size of the user story when the story points are greater than 13. The technique evokes thought and communication between team members.

My team assigned various numbers associated with the SHNU travel requirements which gave us an idea how much resources (time) was needed to complete the sprint each week. During sprint planning, the team asked the stakeholder about any concerns surrounding the story points. Then collectively, a unified decision was made.

Sticky notes and/or index cards work well during the daily scrum meetings. The notes are located on a Scrum white board. It is a visible representation of what tasks has been completed, the current tasks in process, and the tasks to be completed in the sprint. My team used the beach ball to dictate who had permission to speak.

The Sprint review at the end of each week was an opportunity to show the product owner the finished work at the end of a sprint. Also, the work was submitted though email to the user/instructor for acceptance testing. During the Sprint Retrospective, the scrum board or Azure Board is referenced to determine the productivity of the sprint, access if the team will incur any technical debt, and determine what changes need to be made during the following sprint.

**Assess the effectiveness of the Scrum-agile approach for the SNHU Travel project. Be sure to address each of the following:**

**Describe the pros and cons that the Scrum-agile approach presented during the project.**

**Pros**: A primary focus of agile is product placement. The methodology allows the team to develop the product quickly through user/stakeholder feedback. During the project, feedback was given from the instructor and SHNU Travel. Continuous feedback combined with adaptability enables the team to nimbly respond to user acceptance testing. Communication among team members is enhanced during sprint planning, daily scrums, and sprint retrospectives. The effective collaboration fosters creative thinking to unforeseen challenges that may occur (Indeed Editorial Team, 2021).

An example is when SNHU switched their focus to detox and wellness. That strengthened my team’s ability to adapt. I am a big fan of code increments, continuous integration, and concurrent testing. I could call them the three Cs of agile. The team developed the code is small chunks (basic list view). Tested the small chunks to provide early detection of problems (developed test cases). Furthermore, the team was able to quickly implement the stakeholder changes (slide show showing top detox/wellness vacations).

**Cons**: If the company has been using a plan driven approach, then there is a learning curve and an adjustment period during the transition to agile. The team may inaccurately predict the required time and resources needed to complete the sprint/project. My team correctly identified the time needed to complete the sprints. Similarly, this could impact the prediction of profits before the project commences. We struggled with self-organization and the ability to transfer difficulties considering there was only one member performing four different roles.

The agile methodology proliferates goals. Without regular meetings, this could lead to employees having a lack of direction and “unknown deadlines and less accurate costs” (Indeed Editorial Team, 2021). The project requirements were vague and sometimes the team felt unsure of the intended product specifications.

Heavy emphasis is given to working code instead of documentation. Areas such as book keeping and account statements completion did not move in tandem with other duties. Furthermore, without the use a project management tool, it was difficult to track the success/progress of the team/project.

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

Overeem mentioned that a project manager must learn how “to blend agile and traditional project management principles and practices in the right proportions to fit a given situation” (Overeem, 2016). A plan driven approach is limited in flexibility and does not accommodate concurrent adaptation based on user feedback. It is inefficient to implement changes and quality control checks after implementation.

The previous reasons are why the Scrum-agile approach was the best approach for the SNHU Travel project. Originally, the project specifications were based on stakeholder requirements and user feedback (plan driven). However, the project requirements were changed when the stakeholder wanted to concentrate on detox and wellness.

The Agile approach focuses on continuous communication with the stakeholder during sprint planning, testing, sprint reviews, and sprint retrospectives. After a meeting with the stakeholder, the product owner had a Scrum team meeting, relayed to the changes to the team, addressed any concerns, and promptly adapted the product backlog. Changes are inevitable regardless of the chosen approach.

Furthermore, the agile methodology allowed the team to quickly adapt to the stakeholder changes before implementation. There was a high level of uncertainty surrounding the SNHU project. “The project manager needs to be able to take an adaptive approach that is appropriate to the level of uncertainty” (Overeem, 2016).

**Resources**

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