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CS 250 - SDLC

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Final Project

**Sprint Review and Retrospective**

* *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.*

As the Scrum Master of the SNHU Travel project, I developed an agile team charter which set out the vision, mission statement, outlined the project team members and their roles, established the criteria for success and the rules of behavior for the team. The vision statement is important to the SNHU Travel project because it elaborates on a value that is achieved through deployment of the product. In this case, the vision was for SNHU Travel to remain one of the top agencies by offering great deals to their customers for their travel destinations. The mission statement defines the tangible result that is accomplished and in this case for SNHU Travel it was to offer trendy vacation packages through their booking system. The success criteria clearly outlines a specific start date and expected completion date which establishes the initial timeline that the Scrum-agile team is using. The final deliverable in this case was a booking system that contained a Top 5 vacation packages list. It was also important to consider the key risks that could alter the execution of the project. For example, there were financial, technical and business risks that were considered for this project. Lastly, the rules of behavior and communication guidelines are important because they establish communication norms that are based in key values and principles that will be upheld as the team works together. This helps to support the team in their efforts in collaborating and becoming a strong self organizing team.

As the Product Owner for the SNHU Travel project, I made sure to balance communication with the users, stakeholders and the Scrum-agile team because that is necessary for the team to thrive. I met with users of the current travel booking system in the form of a focus group in order to get input on potential upgrades for SNHU Travel. This information was used to develop user stories that were used to establish the Product Backlog. User stories are useful because a user story value statement and acceptance criteria are outlined in order to fully detail requirements for the project. Furthermore, the Product Backlog is a prioritized list of user stories. This helps the team estimate and allocate time during a given Sprint. This helps to reduce the risk of a project unexpectedly running over schedule. I made sure that the team kept the customer perspective in mind during the development process because the Product Owner in a lot of ways does function as the voice of the customer.

As the Tester for the SNHU Travel project, I worked closely with the Product Owner in order to make sure that user stories were clearly defined and that test cases accurately reflect those requirements. During my time in this role, I developed initial test cases that were based in the project originally being a Top 5 Vacation Package Destination list. However, I needed to send an email to the Product Owner for clarification on the user stories for the project. In the response I received from the Product Owner, there were significant changes made to the project that I needed to incorporate into my test cases. As a result, revised test cases were developed to reflect the fact that the new project was a Top 5 Wellness and Detox Destination slideshow. I made sure to make changes to the inputs and expected results of the test steps so that the team would be able to accurately determine what work was finished in the Sprint.

As the Developer for the SNHU Travel project, I was tasked with making the necessary changes in the booking system software. In order for this to happen, I emailed the Product Owner and Tester to inform them of the information I would need in order to execute all of the changes. I realized that it is important to make sure that the user stories and test cases are specific and measurable so that development can be test driven. In this project, the style changed from a list to a slideshow so the code needed to be adjusted to include the appropriate frames and resources. Also, the type of travel was changed from general to wellness and detox so the locations and descriptions needed to be adjusted as well. Ultimately, the project aligned with the product vision and acceptance criteria which prevented the unexpected changes from creating delays. The basic functionality of the program was established and adapted to fit the needs of the user which meant that the project did not need to start over from scratch. This is important because starting over could be costly in terms of time and money.

* *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 Scrum-agile approach to SDLC encourages transparency and collaboration which is key for the user stories to come to completion. The size of the team was small which allowed the team to move quickly through the project by breaking down requirements from the user perspective into smaller pieces. Additionally, the user stories are important for establishing the Product Backlog which established low, medium and high priority items. This combined with estimation strategies such as affinity grouping helped create a sustainable pace. Since the SDLC elements in an Scrum-agile project form a loop, there is space to make quick adjustments or even move user stories from a Product Backlog to future sprints.

In the SNHU Travel project, I made sure to create SMART (specific, measurable, achievable, relevant and time-bound) user stories to set a strong foundation for the development of this software. The key element that this applies to is the acceptance criteria section. Having clear user stories makes it easier for the testers and developers to understand the end-user perspective. This also empowers the developers to develop using test driven development which ensures higher quality output. I used the user stories to create initial and revised test cases which helped to establish the definition of done.

The first user story dealt with having a customized top destination list. This requirement was completed by having a list with the title “Top 5 Destination List” and a variety of destinations were included that would appeal to the end-user. The second user story dealt with including travel type in profile settings. This requirement was adapted when the focus of the vacation packages turned to wellness and detox. The release of the SNHU Travel project included a slideshow of five of the best wellness and detox locations. There is also room in the future to add travel preferences such as location, time length, weather and language when the focus of the vacation packages changes. The third user story dealt with setting price limits in order to search for affordable vacation packages. There is not yet a feature to filter by price due to the limited amount of destinations that were included in the initial release. However, as the number of potential destinations increase, a price limit filter for searches would be appropriate and helpful for the end-user.

* *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.*

Unlike the waterfall process where changing the trajectory of a project can derail it and waste resources in the process, the Scrum-agile approach is adaptive which allows projects to make the necessary adjustments and deliver a product to the end-user. The SNHU Travel project was not a linear project. There were several changes made which required clarification and refinement. There was communication between the Product Owner, Testers , and Developers so that the team stayed on the same page. The Developers adjusted the formatting of the code from a list to a slideshow. They also changed their trip information resources from a general destination focus to a detox and wellness focus. The testers adjusted the pass or fail measures in their test cases to accurately reflect the new outcome for this iteration.

* *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.*

There were several moment in working on this project where effective communication was necessary to continue to drive the SNHU Travel project. For example, as a Tester I needed to communicate with the Product Owner in order to make revisions to my test cases. I’ve included a sample of my email:

To: Christy (Product Owner),

Subject: Need Additional Details Regarding User Stories

Dear Christy,

Now that we are moving in the direction of creating a slideshow instead of a list, I have a few questions regarding your user stories. For user story 2, will wellness and detox be added as an additional description tag for vacations? Also, for user story 1, will wellness and detox trips be included in the suggested travel recommendations based on travel history or user profile settings?

Please respond at your earliest convenience.

Thank you,

Kenneth

This email gives the Product Owner the opportunity to explain how the end-user requirements have changed so that quality software can be delivered in a timely fashion. Additionally, asking follow up questions fosters communication and collaboration because each role remains a part of the process throughout the entire iteration. It is the collective responsibility of the team to get on the same page. Having a self organizing team is an advantage because the team is able to solve many of their unexpected issues that come up during the SDLC.

Additionally, as a Developer I sent an email to the Product Owner and Tester to gain a better understanding of the new acceptance criteria and test cases. I’ve included a sample of my email:

Dear Product Owner and Tester,

I received your email regarding the changes being made to the SNHU Travel project. Since we are using a new travel type and formatting option I would like to know which elements of the user stories and test cases are being modified in order to have a better understanding of the needs being met with this project. It should not be a problem to make the necessary changes however I just want to make sure that we are all on the same page moving forward. I look forward to hearing from both of you on this.

Sincerely,

Kenneth

This email fosters collaboration because I have described why I need the additional information in order to better write the code needed for the finished product. This collaboration allows for the Developer to employ test driven development so that the core functionality is captured and the project can remain in manageable pieces which makes it easier to revise and debug. This collaboration helps everyone fulfill their role in a more optimal way.

* *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.*

Azure Boards is an effective organization tool that utilizes the Agile methodology. Azure Boards has various hubs that allow the team to manage Product Backlog and other work items so that there are minimal bottlenecks that cause delays with the project. This helps the team collaborate and stay organized during the SDLC. Azure Boards has interactive communication tools which promotes transparency and collective responsibility. Another benefit of this tool is that it is scalable because it uses cloud storage which is useful throughout each iteration.

This tool enhances the Daily Scrum and helps keep team members on task because everyone has a better understanding of what needs to be done. This also can be used in Sprint retrospectives because the team can decide if any changes are necessary after completing a sprint.

This tool is excellent in conjunction with the various Agile principles that are utilized throughout the completion of this sprint. First, the customer is always the top priority and this is demonstrated from the developing of user stories to the Sprint review. Understanding the customer perspective must remain constant in order to create high quality software. Another principle is being open to changing requirements. This was the case when the style and focus of the project changed in the middle of the sprint. Furthermore, the team remained focused on delivering working solutions. This project had a relatively short timescale and was successfully able to deploy a product for the end-user. Furthermore, Developers and business people worked together throughout the project. Each role played a key element in completing the iteration throughout the SDLC.

* *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.*

For the SNHU Travel project, there were several pros of the Scrum-Agile approach. One advantage is customer satisfaction. There are relationships built with the customer through forums such as focus groups where their input is highly valued and sets the focus of the project. Working from this perspective makes sure that key functionality elements are not missed. Another advantage is in the room for flexibility for the team. Requirements are sure to change since this process is not linear and this helps maintain the flow of the team. The key is how strong the team is with communication and collaboration to stay on track. Another example is progress is measured through the output of working software. The timeframe is usually short and there is not a focus on perfection only what is necessary which maintains simplicity and does not overcomplicate the process.

On the other hand, a con of the Scrum-Agile methodology is that there is less predictability. This can skew time estimates which can cause delays in the release of a product. In this project, there were not delays however time estimates had to be reorganized in order to stay on track. There is also less documentation at times which can make it difficult for Developers and Testers because certain elements of a project can be vague. This is why it is important to have constant communication and collaboration with the team. A strong team helps each other clear up misunderstandings.

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

I believe that Scrum-agile was the best approach for SNHU Travel project because it benefitted from having a small team that worked in smaller time frames. In the charter, it mentioned that the project was only 5 weeks long so that the product could be released before the summer. SNHU Travel was able to accomplish this goal because instead of letting the changing requirement cause delays or expand the budget because there was constant teamwork from each role during the development of this software. The Scrum-agile approach is only as good as the team that is utilizing it. Therefore, it is important for each team member to buy in and to fulfill their role. Productivity is high with this approach because goals are always being set and each team member can utilize their strengths in order to release the travel destination booking site. I do not think that the waterfall process was appropriate in this case because there was a high risk of not delivering the software in time which would negatively affect the business and customer relationship.

**Resources**

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Cobb, C. G. (2023). The Project Manager's Guide to Mastering Agile: Principles and practices for an adaptive approach. Wiley.

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