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CS 250

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**7-1 Final Project: Sprint Review and Retrospective**

Before shifting all of its development teams to an agile methodology that uses a Scrum framework, ChadaTech piloted the process through our team’s application development for SNHU Travel. The Scrum-agile team consisted of a Scrum Master, Product Owner, tester, and developer. All of these roles contributed to the success of the SNHU Travel Project. The Scrum Master was responsible for ensuring effective Product Backlog management, helping the development team to create high-value products, removing challenges slowing the development team’s progress, and facilitating Scrum events. As Scrum Master, putting together a Sprint Review and Retrospective at the end of a Sprint or an incremental release is important to the overall success of the project. By analyzing the work done during the course of development and reflecting on what went well, what went wrong, and what could be done differently, the team is able to improve the process not only as individuals but collectively as a team.

The Product Owner was responsible for providing direction to the team on what will be built, prioritizing the work to be done, and maximizing the value of the product and the work of the development team. Communication and collaboration between the Product Owner and SNHU Travel was critical for the success of the project. Specifically, in order to gain a clear understanding of what features were wanted by users and their priority, the Product Owner met with a focus group. By directly engaging with the users, the Product Owner was able to gain information on what the end users wanted to see in the final product. Through user interaction, the Product Owner was able to gain a clear vision of the product goals, which was not only useful in providing the team with information on what needed to be built, but also maximized the value of the product to the user. If the team did not have a clear understanding on the user needs, the value of the product would have been diminished. The Product Owner engaged with users and stakeholders, and effectively communicated that information to the Scrum team, which was very important in order for the team to develop a high-quality product.

The tester was responsible for defining acceptance criteria and acceptance tests, clarifying any ambiguity found in the code and user stories, executing test and analyzing results, and collaborating with the team to resolve issues and defects. By working closely with the Product Owner and using their user stories, the tester was able to create test cases to define acceptance criteria on the functionality of the application. This was extremely important in the success of the project as it provided the developers information on what the code needed to do functionally in order to pass.

The developer was responsible for designing and developing code according to solid software engineering practices, participating in peer reviews, and collaborating with the team to produce just enough design so that there was room to iterate. When changes in requirements arose within the SNHU Travel Project, the developer was able to adapt and collaborate with the Product Owner and tester to effectively change code to reflect SNHU Travel’s new requirements. Open communication between all members of the Scrum-team was essential.

As mentioned earlier, part of the Product Owner’s responsibility was to create user stories. Those user stories were used to “break the requirements into small chunks of functionality to be built incrementally” (Cobb, 2015). Through the use of user stories, the Product Owner was able to define and communicate the product requirements to the developers. The user stories helped the team gain a clear understanding of the product vision, which in turn helped them maximize the value of the product developed to the user. In order to complete the user stories, a Scrum-agile approach was used. To write useful user stories, the Product Owner met directly with the users. Without the user’s input on what requirements were most important, it would have been very difficult for the Scrum Team to develop a product of high value to the customer.

Since the Scrum-agile approach is iterative, changes to requirements were expected and accepted when SNHU Travel decided to go in a different direction. The Product Owner was able to take this new information and create a new user story. The team then made the appropriate adjustments necessary to deliver an acceptable product. In agile methodology, change is expected and encouraged as the project progresses. By developing in iterations and defining requirements in more detail as more information is gained, developers were able to be more flexible in their approach. If requirements were set in stone at the beginning of development, it would have made trying to change or to add things at the end almost impossible. Delivering the product in increments provided the team and client with opportunities for improvements and to adapt to any changes that came up.

In order to be successful within a Scrum-agile team, open and transparent communication is essential. Communicating effectively encourages collaboration among team members. During development for the SNHU Travel application, multiple instances of effective communication were shown. For example, when the tester was creating test cases for the user stories, clarification on specific requirements and additional information was needed from the Product Owner to determine pass/fail criteria. Secondly, when new requirements arose, the developer needed to contact both the Product Owner and tester to gain a better understanding of the changes. Samples of these emails are included at the end of this document. Both emails effectively communicated the sender’s needs and prompted the recipient for an appropriate, detailed response. They promoted collaboration between team members by engaging them in the process of development.

Success of the SNHU Travel Project was driven by multiple organizational tools, such as the Product Backlog, user stories, and test cases. Product Backlog is a prioritized list of the work needed to be done in the form of user stories and it is constantly changing with the needs of the customer. Using the user stories, test cases were developed in order to determine acceptance criteria and give developers the information they needed to develop code that would pass certain functionality. Various Scrum-agile principles, such as variability and uncertainty, prediction and adaptation, progress, and performance were also a driving force. Iterative and incremental development was seen through Scrum events, including Sprint Planning and Daily Scrums. In Sprint Planning, the Product Owner and the team decide what user stories to take into the Sprint. This is important in order to maximize the effectiveness of the user stories.

Overall, the Scrum-agile approach was highly successful for the SNHU Travel Project. A major benefit to an agile approach is in its adaptability. This was evident when SNHU Travel met with the Product Owner to change the focus of the travel booking system to detox/wellness vacations. In a traditional waterfall approach, requirements are defined up front. Agile allows for requirements to be defined as the project progresses allowing for the customer to makes changes if they don’t like something or want something else. Iterations allow for constant improvement and collaboration. Another benefit of agile is immediate feedback. The customer is more involved in the development process and there is open and transparent communication between all members of the team. Since the product is delivered to the customer in increments, customer feedback can be incorporated into the next sprint allowing for improvements as the product is being developed. If a waterfall approach were used, these things would not be caught until the end of the project, which would waste time and resources to go back and fix things. A con to agile would be its varying degrees of uncertainty and lack of predictability. Not having requirements defined up front and the fact that what requirements are known may likely change makes it hard to plan and estimate the time needed to complete the work. Reflecting on these pros and cons and due to the nature of the SNHU Travel development project, I believe a Scrum-agile approach was the best approach to take. It allowed for adaptation, increased focus on the customer, and a higher quality product to be delivered.

References:

Cobb, C. G. (2015). *The Project Manager’s Guide to Mastering Agile: Principles and Practices for an Adaptive Approach* (1st ed.) [E-book]. Wiley.

Tester Email Communication Sample:

To: [Product Owner’s Name]

Subject: User Stories Clarifications

Dear [Product Owner’s Name],

I have reviewed the user stories that you provided and am developing test cases for them. I need a bit more information on the different features in order to determine pass/fail criteria. Would you be able to answer the following questions for me?

**User Story #3**

* Once the user enters a price range, should the vacation packages be viewed as a list on one page or separately as in a slideshow format?
  + Will this format be the same for User Story #4 and User Story #5?
* Should the destination description be kept to one sentence, or should more details be included?
* Should a sorting feature be included to view the listings in different ways (least to most expensive, user ratings, popularity, etc.)?

**User Story #4**

* What specific vacation types should be options to filter vacation packages by?
* Should this just be a filter on the main page or also included as a preference setting within the user profile?

**User Story #5**

* Should there be additional filters included to view hot deals by vacation type, price range, etc.?

Thanks,

Jen

Developer Email Communication Sample:

To: [Product Owner’s Name] and [Tester’s Name]

Subject: SNHU Travel Detox/Wellness Vacation Feature Update

Dear [Product Owner’s Name] and [Tester’s Name],

After our meeting today regarding SNHU Travel’s request to focus on detox/wellness travel for their booking tool, I need some more information from you both in order to move forward with development under this new plan.

[Product Owner’s Name], in order to gain a better understanding of the new requirements, I need updated user stories and clarification on the following:

* Is the booking tool going to offer strictly detox/wellness vacation packages or will there still be an opportunity for the user to select different options for a vacation type preference?
* What defines “detox/wellness travel”? How will we determine what destinations fit this definition?

[Tester’s Name], since user stories will be updated, I will also need updated test cases. This will give me the acceptance criteria needed to create passable code for the new requirements.

Thanks,

Jen