CS 250 Software Development Lifecycle

Southern New Hampshire University

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**Chada Tech:**

**Project:** SNHU Travel

**Artifacts:** Agile team charter, Daily standup agenda, Role map, User stories, Basic ListView Control, Test cases, Updated slide show

**Sprint Review and Retrospective:**

The goal of this project is to develop a program for the SNHU travel site that allows users, on a national level, to find travel packages that they might like to purchase. Specifically, during this sprint, the focus of our team’s efforts was ensuring that the site displayed a top five destination list based on user preferences and travel history if present. While not included in this sprint, it is important to note that the project will later implement the ability to set a price range in the user’s preferences which will affect the destination list. During this sprint, we transitioned from the traditional waterfall development model to an agile development model, and as such, we utilized a new team structure to accomplish our goals during the sprint.

The team structure we used is the scrum-agile team model which is comprised of a product owner, a scrum master, testers, and developers. The first role of this team, the product owner, encapsulates a unique position in that the person fulfilling this role acts as a liaison between the team and the customer. Of course, we must note that while developing the user stories, meetings were held with the entire development team and the customer; however, the product owner meets with the customer on a regular basis to provide updates as well as seek clarification on various questions from the rest of the team. Additionally, the product owner is responsible for prioritizing the backlog that the rest of the team’s members will utilize to focus their efforts. The backlog is usually developed based on the user stories which are developed from the meetings with the customer regarding the requirements for the product. In this project, the project manager prioritized the user stories in the following order: displaying the top five destinations list, top five destinations list displays destinations relevant to the user’s preferences or travel history, user has the ability to set travel type preferences, user has the ability to set a price limit reflected in the top destinations list, and the destinations also include a list of excursions available at that destination.

The second role of the team is scrum master which is the role I am currently occupying. The scrum master is responsible for facilitating the development of the product which includes resolving issues that may arise and affect the development process. Furthermore, the scrum master coaches the other team members, specifically the developers and the testers, to further their technical and professional knowledge. This ensures the success of not only the current project and sprints but also future projects and sprints. For this project, in facilitating the development, the scrum master clarified the responsibilities of each role, set the agenda for the daily standup (daily scrum), and developed a charter for the agile team to guide it in the development of the product. As one can see here, the scrum master’s role is primarily administrative, but it does require some technical knowledge given that the scrum master usually provides mentorship to the developers and testers.

The third and fourth roles in this team are the tester and the developer, and these two roles usually work very closely together. The tester is responsible for developing test cases that test the code which is the responsibility of the developers. Both the testers and the developers base their work off the user stories that were created at the beginning of the sprint. The test cases are created in such a way that the code can be continually tested in accordance with common agile practices, and the test cases for this project, like test cases for other projects would be, were designed with specific acceptance criteria.

As stated previously, this project was completed using a scrum-agile approach which heavily stresses the importance of communication. The communication in this project was focused in the daily scrum in which each member of the team, including the product owner, presented what he or she was working on and any issues or roadblocks that had arisen. This was very useful during each phase of the sprint, from the sprint planning to the development and testing, even to this review of the sprint.

Even with the adaptability that is inherent to the agile development model, issues arose late in the sprint when the product owner came to the rest of the development team with a major change in the direction of the project. The change that occurred was the shift in focus from popular destinations for the travel packages to travel packages for detoxification and wellness destinations, such as spas and the like. However, given the adaptability mentioned a moment ago, the team was able to come together in a scrum ceremony and discuss ways forward to implement the necessary changes while keeping the originally projected completion date. The open and clear communication that was maintained during the entire sprint was key to its success.

On the topic of communication, there were a few instances of communication that helped the team be successful. One instance occurred when the tester was working on the test cases that were to be used to meet the acceptance criteria. While working on the test cases, questions arose regarding three of the user stories, and the tester was able to communicate effectively via email to seek clarification on these user stories from the customer through the product owner. This allowed the tester to revise his test cases to more accurately test the product and ensure that it meets the requirements set forth in the user stories. Another example of effective communication is the agile team project charter. This charter, created by the scrum master, detailed the rules that were to be followed by each and every member as well as what scrum ceremonies would occur, and the participation required from each team member.

Again, in the agile development model, communication is of paramount importance and the scrum ceremonies were a clear representation of this agile principle. However, other organizational tools were effective in supporting this communication and played an almost equally important role. Specifically, the task board, represented by the Excel document, was used to communicate the user stories and their priorities, via the backlog, to each team member. For future sprints and projects, it is recommended that a tool, such as Azure Boards or another similar tool, is utilized for this purpose. Tools such as this will allow for real-time tracking of tasks and will promote communication between team members as well as this team and other teams.

The SNHU Travel project presented a unique opportunity for us to transition to an agile development model and weigh its effectiveness against the traditional waterfall development model. Among the pros of the scrum-agile approach is the adaptability that afforded us the opportunity to successfully react to a change in direction; a waterfall approach to this project would not have enabled the team to make the shift in focus necessary for the delivery of a product that met the customer’s requirements. The scrum-agile approach, in its promotion of communication, also provided us the opportunity to address issues as they arose rather than waiting until closer to the end of the lifecycle to address the issues. With this approach, there are very few cons, but perhaps the biggest con is the narrow scope of the sprints and the near-sightedness of the planning phase. The waterfall model promotes planning of the entire project while in the scrum-agile approach, we focus more on sprint-level planning. Despite this con, however, the scrum-agile approach allows for changes later in the project and was the best approach for the SNHU Travel development project.