Final Project Submission

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CS-250 – Software Development Life Cycle

SNHU

When an organization takes on a project for the development of a new application, the process of designing, developing, testing, and implementing is referred to as the SDLC, or Software Development Life Cycle. There are typically two methodologies when it comes to the SDLC, the Agile model and Waterfall model. For many years here at ChadaTech, our application development processes have always followed the Waterfall model, but we’ve considered taking an Agile approach in effort to enhance our products and build a more cohesive corporate culture. To pilot the Agile SDLC model, my team was recently tasked with the development of a new application for our client SNHU Travel. Following the successful completion of this project using the Agile model, it’s my responsibility as the Scrum Master to provide a Sprint Review and Retrospective. In this Sprint Review and Retrospective, I will summarize, analyze, and draw conclusions of the work completed during the project’s application development.

Our project team, referred to as the Scrum-Agile Team, is a small group comprised of members whom of which are assigned the following roles, one Scrum Master, one Product Owner, along with a few Developers and Testers. Each member of the Scrum Team played a pivotal role and contribution in the success of this project. As the Scrum Master, I acted as a coach and a point of guidance for the entire Scrum Team, ensuring that all members stood by and upheld the Agile principles and values. It was my responsibility to promote productivity in a positive atmosphere, remove roadblocks, and act as a liaison between the Scrum Team and Product Owner to facilitate successful relationships between all team members. To fulfill my responsibilities, I coordinated the Scrum Events such as the Daily Standup, Sprint Planning, and Sprint Retrospective. Our Daily Standups were 15 minute meetings that occurred every workday at the same time, intended to have each member of the Scrum Team answer the following questions, “what do you do yesterday”, “what will you do today”, and “are there any impediments in your way”? Our Sprint Planning meetings were where the team collaborated to set a sprint goal, and determine success criteria, team capacity, delivery deadlines, and review any existing backlog. Lastly, I would provide the Sprint Retrospective, such as this one where I outline what worked well, what could be improved, and what will the Scrum Team’s commitment for the next Sprint. The Product Owner kept their finger on the pulse of the SNHU Travel team by maintaining constant and effective communication with users and stakeholders. A key contribution to the project’s success was the Product Owner’s ability to comprehend, empathize, and capture every subtle nuance of the customer’s experiences, struggles, and goals to relay back to the Scrum Team. These “user stories” gave the Scrum Team detailed insight and a thorough understanding of what the end user was looking to accomplish from their own perspective. At last, our project would not have been successful without our Developers and Testers, and their commitment to technical excellence, prioritization of backlog, adaptability, and the laser-point precision during each of the design, development, testing, and implementation phases.

By taking a Scrum-Agile approach to the SNHU Travel project and it’s SDLC, we helped each of the user stories come to completion in ways that we couldn’t have before under the Waterfall model. When the Product Owner and I met with the end-users to capture their user stories, our goal was to detail each of their individual perspectives, inputs, and expected results as thoroughly as possible. One user story requested a for the function to sort vacations by user preferences and profile history, while another requested for the functionality to filter by vacation type, such as cruise, museum, or eco-trip. Other user stories requested for the functionality to filter and sort by top destinations, price range, and preference based upon profile history. This was to ensure that the Scrum Team could later determine the success criteria, priority, and deliverable timelines for each user story accurately and appropriately during the Sprint Planning meeting. After the Sprint Planning, when the development and testing phases had already begun, the Scrum Team revised the user stories to consider any possible adjustments or additions to the deliverables, criticality, and prioritization of each user story test case and adapted accordingly. This was one of the key advantages that the Scrum-Agile model has over Waterfall and allowed us adapt to the revised user stories without having to face any major setbacks. Ultimately, the Scrum-Agile approach and the ability to practice the continuous iteration of development and testing throughout the SDLC was a definitive component of completing the user stories.

The Scrum-Agile approach proved most fruitful when the project was interrupted, and the SNHU Travel team advised that an overall change in direction for the project was needed. Initially the Scrum Team was tasked to develop a product that provided SNHU Travel customers with the top 10 overall vacation and travel destinations worldwide. However, due to an unexpected tilt in customer focus throughout the industry, a product that provided SNHU Travel customers with the top 10 detox/wellness vacation and travel destinations instead was required to keep the company competitive. To fulfill this change of direction to the final product and support the project’s completion overall, the development and testing efforts needed to adjust quickly and accordingly. Although some of the Scrum Team’s progress needed to be scrapped or altered significantly, the ability to adapt our development and testing efforts dynamically through continuous iteration undoubtedly resulted to the completion of the project.

As a Scrum Master, I believe I was able to communicate effectively with the Scrum Team by keeping their focus and maintaining their engagement. By coordinating, sometimes running, or just attending the Scrum Events, I was certain to interact with my team enough to communicate with each member effectively. Aside from the Scrum Events, I was also certain to detail and outline the expectations, priorities, and responsibilities of all members of the Scrum Team, while holding each of us at the same level of accountability. I encouraged every team member to succeed and I expressed their individual value to the team as frequently and often as possible. I ensured that Developers and Tester worked synchronously to preemptively mitigate any breakdowns in communication or understanding during any transitional moment.

The organization tools and Scrum-Agile principles that helped the team be successful were the Scrum Events, such as the Daily Scrum, Sprint Planning, Sprint Retrospectives, along with other fun and engaging Scrum activities like Planning Poker and Friday luncheons. I found the Scrum Principle, such as interactive development, value-based prioritization, and collaboration to be most effective as they encouraged participation and the sharing of ideas from all members of the Scrum Team, giving each member their own voice and time to speak. Lastly, I found that tools such as burn down/burn up charts, information radiator, and project management software such as Jira most helpful to the team and the success of the project. These tools and resources gave tangible and visual representation of the team’s success and progress.

Overall, the effectiveness of the Scrum-Agile approach for the SNHU Travel Project was quite positive. The pros were that we were able to successfully define our acceptance criteria and final deliverables directly from the perspectives of the end-users via user story exercises. The Scrum Team was able to work more efficiently and effective in a positive atmosphere through the ceremonious and routine Scrum Events. And Lastly, the Scrum Team was able to adjust all development and testing efforts on a dime when project experienced a significant change in direction. I truly say that I was unable to find any cons with the Scrum-Agile model, and I honestly don’t believe the success of the SNHU Travel project could’ve been accomplished without the model.