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CS-250: Software Development Lifecycle

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Final Project: Sprint Review and Retrospective

A Scrum-agile team is built upon several principals, but trust and communication among team members is a huge success factor. The team members at ChadaTech who worked on the SNHU Travel Project deserve the credit for the success on this project. While every team member made unique contributes, all members were equally important, and their contributions should be highlighted.

The first team member I would like to discuss is the product owner. Product owners are often extremely busy as they have many duties. Some of these duties include managing the backlog, working with internal teams as well as with clients and stakeholders, communicating client requests to the necessary parties, and prioritizing client needs. In order to successfully preform all of these duties and more, there are several crucial attributes required of a product owner. One of the necessary attributes is the ability to think on your feet when speaking with clients and stakeholders. Sometimes stakeholders and clients may ask questions that are difficult to answer, or you may not know the answer to. Being able to think on your feet and answer the questions to the best of your ability helps clients to feel better about the situation and allows them to trust you.

Product owners also need to have excellent communication. Communication is so important because not only are they meeting with outside clients, but they need to relay that information to the internal sprint team. One example of this was when the SNHU Travel Project team was asked to switch the focus of their booking to detox and wellness locations. The product owner was required to communicate this information clearly with the Scrum team so they could pivot and make those changes. The product owner did a marvelous job at communicating about this to all parties and the implementation was a success. However, had the product owner not efficiently communicated this, it could have cost ChadaTech time and money and also upset the client. Because of the efficient communication and contributions, the product owner greatly helped the team.

It is also important to highlight the developers who worked on the SNHU Travel Project team. As a developer, it is extremely important to have clear communication with all members of the team including the product owner, testers, Scrum master, and other developers. The developers on the team made sure to read the user stories presented to the team so they could know the client and their desired outcomes. Other things that are important for developers to be efficient in are helping to work towards sprint goals, ensure every requirement is met for the feature being worked on, and delivering work throughout the sprint. All of these extremely important things allowed for on-time delivery of features for the SNHU Travel Project that met all defined requirements as well as the expectations of the client.

Another extremely important role on the team are testers. Testers create automated and manual test cases to ensure new features function as expected. Testers also have the job of ensuring previous features continue to work and no new defects occur. This is often times done by an automated regression suit. Manual testing is also done for test cases that aren’t able to be automated. In the agile process, once a developer is finished working on a feature, the feature is normally turned over to Quality Assurance (QA), or testers, to ensure that it functions as it is supposed to. If the code is not working correctly or a defect is present, the tester will then return the ticket to the developer, and they will fix it before returning it to QA. This process continues until the feature is working correctly. While developers may test their code in their own ways, it is extremely important that a tester still take a look at it. Sometimes, you become accustomed to your own code, and you don’t realize the defects that are appearing. Testers make sure all defects are found, to the best of their abilities, and the software continues to run smoothly. Often times testers will also handle documentation, find ways to minimize risk, trouble shoot, and do basic analysis. In the SNHU Travel Project specifically, the testers helped to ensure that the features were working prior to release so that the client and subsequent users wouldn’t have any problems.

The last role that should be touched on is the role of Scrum master. For an agile team, having a Scrum master is something that is extremely important and beneficial. Scrum masters help to facilitate meetings such as daily stand-ups, help the product owner with the backlog, help the team to overcome roadblocks, and aids the team in being self-sufficient. The Scrum master has an important role because they provide support for the entire agile team. While the job of a Scrum master isn’t to tell people what to do, the Scrum master helps the team to effectively communicate and become self-sufficient. All of these things are important because they help create a well maintained and efficient team. In the SNHU Travel Project, the Scrum master specifically helped to facilitate daily stand-ups where team members were able to communicate where they were at in work. These meetings opened up great communication and allowed for team members to get help with roadblocks when needed, making the process of creating the product quicker and more efficient.

In the Software Development Lifecycle (SDLC), there are many stages including the planning, requirements, design and building, testing, and deployment stages. Going through these phases using a Scrum-agile approach greatly helped our ability to complete all the required user stories. User stories are an end goal and provide guidance to the team. User stories can be looked at as a framework and guidance for the team, so they know what the user wants in the end. Sometimes more details are added or changed on user stories. These details and changes are done at different points throughout the SDLC. Often times, user stories are also broken down into smaller tasks. Those tasks then go through the various stages of planning and deciding requirements and planning it out, designing and building the application, then the task is tested by QA, and then finally deployed. After deployments, clients may provide feedback, or something could be changed. Eventually, all the tasks are done, and the end goal presented in the user story is completed. The way user stories were able to be completed in the SNHU Travel Project was through communication of changes, doing all tasks related to reach the final goal of the story, and working as a team.

Partway through our work on the SNHU Travel Project, the client decided that they wanted to shift their focus to detox and wellness destinations. Because the team used a Scrum-agile approach, this interruption and need to change the project direction was possible. In agile, customer feedback is able to be taken continuously; not only at the beginning and end of the project. Because we were given communication regarding this change part way through creating the booking site, we were able to implement the changes relatively quickly. This is because in agile, things are broken down into smaller chunks. So, at the time of the clients change request, the entire project hadn’t been completed and it was easier to fix that smaller portion. The developers were able to pivot and change their code to reflect the new destinations while the testers were able to make changes to the manual and automated test cases they wrote.

The ability to communicate effectively with the team was one of the key elements that made this project successful. Below is an example of an email communication between a developer, tester, and product owner.

**Email:**

Hey Colt and Ethan,

I wanted to reach out and follow up after our meeting surrounding the changes to the development plan. Since these points are directed at both product and QA, I wanted to include both of you on this email.

First, I just wanted to ask a question so I can start to move forward with development. Colt, as the Product Owner, I wanted to check in and see where the new feature is set in terms of priority. I know that Ethan found a defect yesterday in regression and I am actively working on fixing that. With the changes requested in the way the new feature is being built, I’ll only be able to get either the login defect fixed, or the first part of the new feature done for the build this Friday. If you could let me know, I’m sure Ethan would also appreciate it so we both know where to focus our time.

I will also look at the scheduler on Microsoft Teams for a time all three of us are free and I’ll setup a call to go over things more in-depth. Ethan, you, and I can also go over what will be tested with the unit testing, so you don’t waste your time duplicating things with the Selenium tests.

Thanks,

Mikayla Grady

In this email, you can see that a developer reached out to both the product owner and tester for clarification. Because the developer knew there were multiple high priority items (a defect and a new feature) he wanted clarification on which he should work on first. Another important thing to point out is that the developer added all relevant parties to the email. That way everyone is on the exact same page and there’s no confusion. The author of the email also mentioned setting up a call to go more in-depth. This helps to make sure that nothing said over email is translated incorrectly.

In addition to the unique contributions team members made individually and collectively are a large reason this project was successful; it is important to recognize other reasons that the project was a success. Both the use of organizational tools as well as the implementation of Scrum-agile principles contributed to the project’s success. One of the tools that we used was an agile team charter. This defined the vision of the project and outlined the success criteria, communication guidelines, team members, and key risk factors. Following this, and making edits when needed, allowed for the team to have a good baseline guide to follow. Another tool that was used was a Scrum board and ticket management system. We used Jira as the management tool and had great success with this. The ability to move tickets into different columns helped testers know when part of the feature was ready for testing. Developers were also able to update tickets independently to help with accountability and ensure accuracy in status updates. Comments were also able to be left in tickets for anyone to go through and read. This helped with communication when people couldn’t directly call or message someone. Going along with the use of Jira, daily stand-ups were an extremely important Scrum even. They allowed for more open communication and updates on tickets and progress. We were able to follow along during virtual stand-ups by all looking at the Scrum board and seeing the exact ticket discussed. Additional questions were also able to be asked if someone needed clarification on something written on the ticket.

I believe that the Scrum-agile approach taken was a success and effective in the completion of the SNHU Travel Project. One of the pros we saw to this were the ability to make changes when the client requested a switch from the original plan to detox and wellness focused destinations. On the flip side, one con of agile development is that since it may change on a semi-regular basis, sometimes documentation can be missed or can be sloppy from adding and removing things. However, agile promotes consistent communication, which is a pro, and helped overcome the cons in this scenario. Based on the above pros and cons, I firmly believe that the agile approach taken was the correct decision for the SNHU Travel Project.

References (Citation for Email Excerpt from Previous Assignment):

Grady, Mikayla (2022). 5-3 Journal: Developer [Unpublished paper]. Computer Science

Department, Southern New Hampshire University.