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Sprint Review and Retrospective

CS-250

Throughout the past seven weeks, my team has been experimenting with agile methodologies for the development of our current project. The project we are currently building is a web application for SNHU Travel that allows their customers to easily find popular trips and book those and other vacations. During this seven-week trial period, our goal was to discover the potential benefits and make note of any drawbacks that agile development has when compared to ChadaTech’s traditional waterfall development model. After compiling and analyzing these pros and cons, we will be able to present the lessons we have learned in order to help ChadaTech decide whether or not all development teams should begin the migration to agile development approaches.

The agile methodology that we primarily relied on during this project was Scrum. While we did incorporate portions of other agile models, our day-to-day and week-to-week operations throughout the entire development cycle were dictated per Scrum guidelines. In Scrum, the team is broken down into the roles of Product Owner, Scrum Master, developer, and tester. The developer and tester roles are relatively similar to their respective roles in a waterfall development, though the way their work is approached and implemented can significantly differ, as discussed later in this analysis. The Product Owner is the team member that is responsible for transmitting the customer’s needs for the product to the rest of the team in the form of user stories. User stories are essentially narrative example of program functionalities that the customer would like to be available in the final product. In addition, the Product Owner takes the lead in establishing deadlines by collaborating with the team and the client to set timelines that are attainable and reasonable for both parties. The Scrum Master can be seen as somewhat of a team facilitator. They cheer on and encourage their teammates, drive the daily Scrum meetings, and work to remove any blockers that the team might run into. They keep the Scrum team running like a well-oiled machine, including pushing for collaboration and communication throughout the entire team.

Scrum is particularly designed so that each of these roles creates some type of improvement over traditional development methodologies like the waterfall model. In our experience, the addition of the role of Scrum Master presented a stark change from the standard manager-driven work of waterfall development. We found that the Scrum Master was able to more easily integrate with the team since they were on level with the rest of the team, rather than being the person who the team members answer to. This greater approachability made team members much more willing to approach the Scrum Master about concerns that could or would hinder progress. The Product Owner role was crucial to the success of the project, as they were the channel for user stories to pass from the client to the Scrum team. The developers and testers were obviously necessary for the success of the project, as they were responsible for building and verifying the actual product. However, the Scrum-specific roles of developer and tester were far more adaptable than their corresponding waterfall versions, as the incorporation of testing earlier in the development cycle allowed the team to pivot at a much lower resource and time cost.

As mentioned, the Product Owner is the Scrum team member responsible for meeting with the client, making note of the client’s desired functionality in the form of user stories, and then faithfully transmitting those user stories to the team in order to develop the product as the client has envisioned it. At points, this provided some challenges during the development cycle. In a few instances, the testing team felt that they required greater detail in the user stories in order to write accurate tests. However, overall the Scrum approach allowed each user story to be documented, planned, and executed for the final product. In addition, the Scrum approach’s built-in adaptability saved massive amounts of time when the project was interrupted and changed direction. In this case, the client requested a major change in functionality to the application after the majority of the application had been finished. However, the modularity required by agile allowed the team to quickly pivot to this new task, marking it as a top priority and finishing the changes before any large interruptions occurred in the remainder of the testing and development processes.

As you might assume, the close-knit nature of working in an agile environment means that effective communication is crucial. As Scrum Master, one of my main goals was to nurture frequent and clear communication between team members, regardless of the role they play on the team. In one instance, the testers sought greater amounts of detail in some of the user stories. They required this detail so that they were able to write accurate tests from which the developers could write their code following test-driven development practices. To fulfill this request, I suggested the testers reach out to the Product Owner via email, which is shown below:

To: [Product Owner Name Here]

Subject: User Story Clarifications

Hi [Product Owner],

After reviewing the user stories, I have a good baseline understanding of what the client is looking for, but I would appreciate if you could fill in some of the vague or lacking details. This will enable me to write more function-specific test cases as defined by the client’s needs.

User Story One:

* Does the client want the homepage to display the listings? Or would they prefer the listings to be on a separate page accessed by a link on the homepage?
* Does the client want an account system incorporated into the website so that users can book vacations online and save preferences? Or is the website just for finding vacations offered by the client?

User Story Three:

* Should preferred vacation types only display the vacations of the preferred type, or should it display all vacations with the ones of preferred type shown first?

User Story Six:

* How much personalization data does the client want to store per user?

Thanks, Will

This prompted the Product Owner to schedule a meeting with the client and the testing team, during which the testing team’s concerns were resolved.

During this project, our team applied numerous organizational tools to pair with the agile process in order to elicit the best possible results. However, the tool we found of greatest value to the team was the implementation of a Kanban board to track the user stories. Our digital Kanban board contained each user story, the state of each story, and the current owner of each story. This allowed the entire team to visually understand where we were on the progress to completing the project. In addition, the ownership made clear to each team member what they were responsible for working on.

To conclude, I believe that ChadaTech could greatly benefit from a transition to agile methodologies. Our team determined that this current project was made much more efficiently through the application of Scrum. Agile’s greatest strength, as we experienced, is the agility that is its namesake. This adaptability saves work, time, and money compared to more traditional development models. In addition, the iterative nature of Scrum and agile mean that the process and team are also continually improving after each cycle. In fact, it is nigh-impossible to find fault with the Scrum process during this project, as any potential problem was quickly resolved thanks to the speedy communication and teamwork.