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Professor Walker

CS-250 Software Development Lifecycle

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I work for ChadaTech, a company that specializes in custom software design and development for both domestic and international clients. After years of software development using the waterfall development model, we have been chosen as the first team to pilot a development using the agile methodology and a Scrum framework. Recently, I’ve accepted the role of Scrum Master leading my team on a software development project for our client, SNHU Travel. Our team has just wrapped up our first sprint and we’re already beaming! I will be organizing our experiences in this Sprint Review and Retrospective document which we will be submitting to our management. Next week we will be presenting the lessons we have learned through our first sprint as a team, and we can’t wait to share our insights!

As Scrum Master, I was responsible for organizing all Scrum events. After the initial meeting with my product owner and our client, we arranged our Sprint Planning meeting where we decided on the specific user stories we would work on during this sprint. We spoke with our product owner and detailed each user story into a set of tasks and developed our sprint backlog. Initially, we planned on holding our Daily Scrum meetings in the activity room to develop a more personable experience. However, due to lockdown procedures, we had to minimize office time and quickly adapted by using Jira project management software and Zoom video conferencing to host our Scrum board and coordinate team progress. This was not the only time we had to react quickly. In the middle of our sprint, our client’s management met with our product owner to discuss a change in requirements. I initiated the call for a team meeting immediately to discuss how we could fit the new requirements into our schedule.

Following a Scrum framework distributed specific duties to all team members, and I believe this sense of ownership and self-organization contributed greatly to our success this sprint. Our product owner was more than prepared in detailing a prioritized list of user stories into a product backlog. She then provided the development team with detailed user stories containing proper acceptance criteria. We quickly decided how we would get started during our Sprint Planning meeting and went right into coding some front-end work. I give my highest regards to her for her engagement with our client during the sprint. When expectations shifted, she was available to communicate our customer’s needs precisely enough for our development team to respond rapidly. I believe the only miscommunication we experienced was between our product owner and tester. Our first front-end mockup ended up changing from a scrollable list to a slideshow display and this caught our tester off guard. Our tester quickly clarified the issues with the team and our product owner, and we got back on track. Overall, our tester had no trouble creating the proper test cases as our product owner provided complete clarity on acceptance criteria for the requirements completed this sprint. None of this would have been possible without our two developers. From the initial interface mockup to the slideshow adaptation, to a complete overhaul of our search algorithm, they have meticulously delivered software of the highest quality. Our tester finished the latest testing on our revised iteration, and we were extremely proud to show this off to our customers where it was well-received.

For years we have developed software using a waterfall development model. Oftentimes, user stories are well defined early on and implemented in a rigorously planned sequence. What was unique about this development was that the team was able to collectively refine specific aspects of user stories throughout the process. As described earlier, when we made some changes to the user interface the team had to verify some modifications to testing and acceptance criteria. After an email conversation between our tester and product owner, we decided to have a quick Zoom conference call and clear up these issues as a team. If we did not adapt a Scrum-agile approach to this project we would have certainly missed an opportunity to maximize our business value from a very early stage of development. Our product owner detailed most of the user stories early on, but it would not have been possible to cater to our customer’s needs as quickly as we did mid-sprint if we were still using a waterfall approach. The team adapted to the change rapidly and we plan on using our next backlog refinement meeting to organize what we have set aside to do so. As a Scrum team we were able to immediately drop the ideas we were working on and change focus onto something more valuable, it was refreshing, to say the least. Applying the agile methodologies to this development has been incredibly invigorating and empowering for the team as they’ve attached themselves to its unique requirement transformations.

Although we had initially planned on holding all Daily Scrum meetings in the office’s activity room, we were forced to change our tune and utilize modern technologies due to lockdown. Email was often the most convenient way for our team to reflect with each other on minor issues or feature questions. Although there were numerous messages sent personally between members, it often helped to chain messages to keep the team coordinated outside of Zoom conference calls. Here’s a quick sample of a conversation just before completing the iteration:

To: Christy, Brian, James

Subject: Jira Task Update; Last minute testing!

Dear Christy,

Everything is looking great so far on our new wellness/detox travel booking application. Thank you for providing further clarification at our last meeting. I agree that next Wednesday’s backlog refinement will be the best time to discuss plans moving forward.

I’ve updated Jira with our latest task in allowing users to view the top wellness/detox vacation locations. On this task you will see the necessary code for the new search algorithm. Brian, I’ve added a subtask as a reminder to finish testing this feature. Christy, once we verify these builds are passing, this requirement should be ready to go for deployment. I can’t wait to show this off at our upcoming sprint review. I think our customers are going to be ecstatic when they see how well our algorithms can provide the specific travel options they desire.

Thanks again guys!

Scott

To: James, Brian, Scott

Subject: RE: Jira Task Update; Last minute testing!

Scott,

Just confirmed Brian’s updated testing. Ready for deployment! Are you guys ready to show this thing off or what!?

Christy

Though it seems rather intuitive to keep in constant communication with team members, it is often the case that individual members veer off into isolation. By requiring punctual attendance to all Zoom conference calls, showing consistency in sharing email updates, and utilizing Jira project management software, we had no issues progressing as a cohesive unit. Through Jira we were able to update task lists on the Scrum board in real-time. I spent some time organizing our project page to better suit the needs of our team, but I have to say it was very practical and much cleaner and legible compared to the typical activity room display. While these development tools assisted the team most of the time, it was still imperative to hold a few important in-person meetings. For example, evaluating user stories face-to-face played a vital role in developing a personable relationship between our product owner and our customers. I also think it helped us as a team when sudden changes came towards the end of the sprint. It reminded us that we’re in this together.

For my first serious role as Scrum Master, I can honestly say I have no regrets. I had a bit of anxiety stepping into this role as a pilot team representing our company. It felt like such an enormous responsibility! I was a bit frustrated during the initial planning, having to rearrange and figure out unique ways to adapt to lockdown requirements while keeping the team on task. Once we got the ball rolling though the team really took their self-organization and autonomy to another level. After this first sprint, I believe we have a better idea about our team velocity and how to define proper level of effort estimations. We’ve also learned that working collectively as a team can be challenging at times. Coming from years of waterfall development experience, most of us were used to following a specific list of tasks in our own environments. When requirements would change, we experienced a few hiccups but nothing a quick but reassuring conversation couldn’t clarify. It was certainly liberating taking on such a flexible approach to development. We’re all extremely proud of our results but I can’t deny saying that it sometimes feels like you don’t always know what to expect. At first, rapid adaptation can seem frustrating and as if you’re sailing off course. To be honest though, no other development approach may come as close in reflecting the true nature of the tech industry. In the end, all of it was worth it. Could we have done this using a waterfall development model? I would say yes, of course, but personally I do not think the result would have been nearly as striking. When we displayed our work to our customers, their jaws nearly dropped to the floor. We felt the excitement sweep into the room as they pretended to be their own users searching through the top wellness/detox locations. We’ll have even more to tell you in our presentation next week about what we learned together throughout this process. I sincerely thank you for choosing us to serve this role. I’ve learned more about myself and how to gracefully coordinate working with others in these past weeks than I have in my entire career. I think my team would vouch in my appraisal for adopting the Scrum-agile approach to development company-wide.

Best,

Scott