**Sprint Review and Retrospective**

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A Scrum-Agile team is highly dependent on transparency and collaboration. These two attributes are only achieved by high-functioning, independent, and communicative members. Each member within a Scrum-Agile team plays a pivotal role in the success of a project and team. Firstly, we have the Scrum Master (me) who facilitates Scrum events, assists in removing obstacles or impediments, and ensures the adherence to Scum principles. These are responsibilities of mine that must be maintained and completed throughout the entire development process, especially during: sprint planning (this will determine our course of action and essentially act as a guide for each and every sprint), daily standups (this reinforces communication and collaboration which is vital for any Scrum team), and the sprint reviews and retrospectives (which provide a tremendous amount of support for improving on our processes and determining how well each sprint aligned to our product vision). I can encourage open discussions, assist in identifying and resolving obstacles, work closely with the PO to prioritize backlog items, provide the necessary support for developers and testers, and keep retrospectives engaging to foster feedback and continuous improvement. All of these tasks and responsibilities fall on me (Scrum Master) to ensure the success and deployment of a project.

Following, is the Product Owner (PO), who manages the product backlog and ensures the team builds high-valued releases and features. The PO ensures alignment between business needs and development efforts through creating user stories based on stakeholder requirements, clarifying requirements for developers and testers, prioritizing backlog items to deliver maximum value, and collecting feedback from users. These responsibilities are done during the backlog discussions, meetings with stakeholders, and meetings with developers and testers. The PO is essential to the success of a project as they determine the project vision, course, and provide necessary clarification which will ultimately determine how much value each release delivers to the clients. During the SNHU Travel feature implementations, the PO clarified vague user stories such as determining how deals should be listed, for example, a vertical list or a slideshow. Next, are the developers who implement user stories, write the actual code of the project, and collaborate with testers to ensure functionality and requirements are met. Developers work closely with the PO to understand and implement user stories, collaborate with testers to ensure features are implemented correctly and meet acceptance criteria, utilize the agile methodology to iteratively plan, build, and release sprints, and implement project tools such as Slack or Microsoft Teams which facilitate communication and collaboration instantly. Without developers, code would never be written, and projects would never be accomplished; by delivering functional features, they incrementally build projects which meet and satisfy clients’ requirements which are the ultimate measurements of success for a project. The developers utilized their communication tools and collaborative efforts to determine whether the SNHU Travel health and wellness feature should have its own landing page or be integrated into the search results.

Testers develop test cases, create and perform automated testing, and provide feedback and expertise to the rest of the team. They utilize user stories to create test cases, provide edge cases, and suggest improvements based on outcomes of tests and prior knowledge of functionalities. These responsibilities provide quality to the product by identifying faults or incorrect implementations which improve functionality and provide additional increments toward a successful project. Lastly, are the stakeholders (users, clients, etc.) that provide feedback and ensure the project meets their needs/requirements. Stakeholders have the ability to attend sprint reviews to observe the outcomes of sprints and provide feedback, they can report issues and discuss about their difficulties with the project, and they help validate how releases and features meet user needs. This overall input helps the PO define product vision and priorities that the team can work on. For example, SNHU Travel’s stakeholders requested changes to the initial vacation list which lead to the slideshow presentation of the list. Each role of a Scrum team has tremendous responsibilities and taskings, which in conjunction, provide the best odds of meeting requirements and deploying a successful project.

The Scrum-Agile approach utilized user stories to create functional features for the application by using iterations, improving on collaboration, and leveraging flexibility. Iterative development allowed for quick and reactive adjustments to SNHU Travel’s changes. During the initial vacation list feature, the listing was presented in a vertical fashion, however, SNHU Travel decided to adopt a slideshow format which we (the Scrum team) accepted the change and incorporated the new feature that would resonate with their consumers. We were able to achieve this by breaking down the requirements into user stories allowing us to focus on smaller tasks which reduced the overall complexity of the feature. We also utilized collaboration by clarifying acceptance criteria for the health and wellness vacation feature through emails and various communication tools to keep ambiguities at bay. This prevented us from any misunderstandings or confusion which could have led to mistakes and possible rework/revisions of code. Lastly, Agile leverages flexibility to allow for changing requirements. The health and wellness feature was originally planned for search results, but instead was integrated into the homepage after feedback was given. Being flexible allowed us to ensure the feature met stakeholder requirements and we were able to adjust priorities quickly and in real-time.

As I’ve mentioned previously, Agile thrives on change and utilizes continuous improvement and feedback to deliver the maximum amount of value to stakeholders. Change is inevitable and the backlog refinement ensures smooth transitions between sprints. The PO and I worked diligently to update the backlog when changes were made, and this prevented outdated tasks and low priority features from slowing down the development team. For example, stakeholders had requested a change to add a price limit option for vacation results. The PO and I had to adjust the backlog to reflect new priorities for the subsequent sprint and the developers were able to meet the demands of the stakeholders in a timely manner. Additionally, Agile thrives on high-functioning and independent teams, this ensures high velocity and effort are maintained throughout the SDLC to include changes in the project. This empowers the team to find creative solutions and collaborate to deliver the best results to stakeholders. Another example was when the price limit feature was under a tight timeline, developers and I worked cohesively to redistribute work and prevent bottlenecks.

Effective communication paints a path towards transparency and progress which are elements towards a successful project. I previously emailed the PO (Christy) about clarifying requirements; specifically, I asked her about the health and wellness feature and if the listing should be based on user preferences or previous history, where the feature will be displayed, and if there are specific criteria for which listings to promote. This is a prime example of using communication tools to clarify and collaborate with other team members. It was effective as I clearly structured my questions to receive a specific and precise answer. I also encouraged collaboration by involving the PO and asking her to respond before a certain deadline. These are tools other roles can utilize to ensure the effort they put in aligns with the desired outcome or vision. Another example would be the use of daily standups that identify and address issues on a day-to-day basis while also maintaining transparency. Utilizing the three questions at the beginning of the day clearly outlined progress made and obstacles experienced, this encourages collaboration as others may be facing similar issues and they can work together to create a solution. The daily standup serves as a time block to ensure effort is still aligned with vision and issues are quickly taken care of.

Agile supplies us with principles and values which alongside development tools can assist in deploying a successful project. Firstly, we have Kanban and Scrum boards that visualize our work; physical or digital. Many teams don’t have the privilege of being co-located which means tools like Jira are extremely useful for teams to track tasks and backlog items online. A Kanban is structured into columns such as “to-do”, “In progress”, and “Complete” which allow the team to visualize where tasks are along their SDLC and prevent confusion. Kanbans and Scrum boards can be utilized during sprint planning and daily standups for progress updates which help deliver working software frequently—a principle of Agile. Secondly, we can continue to use tools like Jira or Azure DevOps which assist in prioritizing and ordering the backlog. The PO orders backlog items by the amount of value they can deliver and uses the backlog to facilitate sprint planning by ensuring the backlog items chosen are achievable within the sprint timeframe. This helps the team ensure they do not waste time on low priority items and maintain focus on the product vision. These tools in conjunction to Scrum events demonstrate how the priority of Agile should be focused on early and continuous delivery of software to the client which is paramount to a successful project.

SNHU Travel is similar to many other clients we’ll meet in projects further on. For this particular project, Agile had a few benefits which allowed ChadaTech to deliver the most amount of value to our client. Firstly, Agile provided us with the flexibility to adapt to changes. As we’ve discussed, the vacation list feature was supposed to be a simple vertical list but changed to a slideshow presentation. The PO and I worked diligently to refine the backlog and reprioritize backlog items to ensure the next sprint the developers and testers completed would accomplish the most amount of value for top priority items. This example demonstrates the benefits of being flexible, we were able to take feedback from stakeholders and incorporate a new feature without completely changing our vision or path towards completion. Secondly, Agile afforded the client with incremental deliverables that contained features in small increments. For example, when we initially released the deals page, it was a simple list that demonstrated a few listings but later was improved with additional filtering options such as price limits and more. This ensured early delivery of software which is an Agile principle and allowed the stakeholders to observe and assess the work done to provide feedback and possibly correct any deficiencies before we were too far into the SDLC to drastically change anything. This incremental value paired with the flexibility to adapt and overcome change highlights why Agile is such an adopted methodology for the SDLC.

However, there is no one correct methodology to project management and the Scrum-Agile approach does have its drawbacks. First, we started our project with unclear requirements and functions. The PO may have some user stories created and defined, however, most of the time many user stories will be missing details that won’t be uncovered until the last possible moment. This has the potential to create confusion and even rework later on as developers may think that their sprint item is well defined enough to then realize the feature they implemented doesn’t align with the stakeholders’ requirements or the stakeholders were unsure of the requirements they wanted. As mentioned previously, the deals page was a bit ambiguous and so we launched a feature that was lacking in options and caused us to have to improve on this later in the SDLC. Additionally, because Agile takes advantage of change, we are exposed to change frequently, and this can cause some serious overheard costs. Constant change not only affects the actual writing of code, but also affects the planning, the testing, and much more. This increases both time and project costs which can become cumbersome for both the team and the stakeholders.

Despite the benefits and drawbacks of the Scrum-Agile approach, I wholeheartedly believe the Scum-Agile methodology was the best approach for this project. Agile thrives on change and the tech industry is subjected to constant changes, new updates, and newly found practices and methods. This means that in order to stay competitive and relevant in our industry we have to accept and leverage change; Agile does just that. We can deliver early working software which provides us with clear and early feedback that can prevent major rework later on in the SDLC. This also encourages the client to sustain their belief in the development team and collaborate continuously to find the best solution for their consumers. Lastly, this high level of collaboration and communication only reinforces teamwork and builds higher functioning and independent teams. The more mature a team is, the more a company can rely on them and the more value they can deliver to stakeholders. Agile may not fit every project/context but this was the best approach for SNHU Travel.