**SNHU CS-250 Software Development Lifecycle**

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**Final Project – Sprint Review and Retrospective**

Through the Agile method, at certain milestones, typically following a sprint, two ceremonies take place; Sprint Review and Sprint Retrospective. While they can usually happen back-to-back, they serve different purposes and goals. For a Sprint Review, the goals are focused outward from the team, meaning this is an opportunity for the team to “review” progress with stakeholders and collect feedback for the next sprint (Singh, 2024). A Sprint Retrospective is focused inward within the team. Questions like “what went right?”, “what were some barriers?”, “How can we improve communication?” are the objectives of a retrospective (Singh, 2024). Retrospectives are important because it is a tool to consolidate lessons learned and best practices amongst the team before the next sprint. In preparing for a Sprint Review and Retrospective, as the Scrum Master, I will focus on some key points of the SNHU Travel project.

Within the Scrum Agile framework, each team member serves a specific role, however regardless of role, communication and group participation is key. The Scrum Master is the leader of the team, their experience should help guide team members throughout the project. The Scrum Master is also the facilitator of events/meetings such as a daily scrum and sprint reviews. Specific to the SNHU Travel project the scrum master set a sprint schedule, communicated with the project owner and facilitated daily scrums. Finaly, the scrum master lent experience and feedback to the project owner when reviewing the backlog and user stories.

The Project Owner is responsible for communicating the needs of the stakeholders to the team. A skilled project owner should be able to translate features or details by the stakeholder into actionable user stories. Additionally, they need to manage the product backlog so higher priority stories are completed first. In the SNHU Travel project the project owner met with SNHU Travel, and determined they wanted to pivot to focus on an emerging travel category of wellness and detox. The project owner took those requests to the team, communicated the new scope, and answered questions for better clarity.

The Developer worked on the user stories by developing an app, and/or features within the app to fulfill user stories. Working closely with the tester to ensure the user story being worked on, meet the expectations of the stakeholder.

The Tester worked with the scrum master and project owner to ensure completion criteria was being developed in a testable way. Taking the details of a user story, the tester broke down the task by creating specific items to test within a feature to ensure expectations were being met and the code was functional.

In the Scrum-Agile (SDLC), tasks are broken up into user stories. Each user story has details explaining what the user story should accomplish. Using a story from SNHU Travel, the project owner stated that users will want to be able to search for items in a price range. A user story of “Price Filtering” was created with specifics such as “ability to select a price range”. To expand on the story, the tester created tests to ensure functionality and acceptance criteria were met. For the Price Filtering story, the tester wrote out test such as: “Click on filter button > returns list of filter option including ability to filter by price”. The better detailed the user story and test are, the less change of miscommunication, bugs, or missing expectations all together are when the story is complete.

In a Scrum-Agile approach, a change in scope is more manageable than in a waterfall system for a number of reasons. One reason for the flexibility is the project timeline is broken up into sprints; in this project each sprint was 9 days. This allowed tasks (user stories) to be reprioritized more frequently and backlog items to be added. One major shift in scope for the SNHU Travel project was a shift from “Top 5 destinations” to “Top 5 Wellness/Detox Destinations”. This shift was not as impactful to the timeline because the backlog focused on core features and framework of the app first. So, when the pivot was presented halfway thought the project, the team had not sunk many resources into the specifics of travel destinations. After a brief review and progress report, the developer reported that the change in scope would not be a major hurdle. As a result, the project owner was able to update the backlog items, and reprioritize user stories to accommodate the shift, without an impact to the timeline.

Communication is critical in an agile system. The availability of the project officer and scrum master were critical in ensuring questions were addressed and answered promptly so not to delay development or testing. A highlight of effective communication was when the developer needed clarification on a story and prompted the project owner to begin looking into the smaller details, presumably for the next sprint. From the Developer to Project Owner:

I am following up from our last meeting with a status and progress report but would like to clarify some details about the change. Pivoting the features to focus on wellness/detox retreats does not appear to be a major shift, the structure remains the same.

In the updated slideshow format where are the rankings of the “top five” originating from? Currently the destinations are hard coded, but this is not a sustainable solution.

As I develop the slide show, we need to review the design and color scheme, in my testing, the current scheme of black text on blue background is difficult to read. Is there a site wide scheme we are matching?

Is the expectation that this top 5 list will be a pop up or will it be embedded into the site?

For the SNHU Travel project a project charter was established in the beginning to set clear goals, rules, and framework for the entirety of the project. Those events and tools are listed below:

* + Events:
    - Daily Scrum meeting
    - Sprints
    - Sprint review
    - Sprint retrospective
  + Tools
    - Azure Board
    - Microsoft Teams for documentation
    - Email and text communication

The Agile method approach is a great method when working in fluid environments where changes are expected, and complete details of the final project are still unclear. There are some drawbacks to the Agile method a few pros and cons are listed below:

* + - Pros:
      * Flexibility when shifting priorities
      * Encouraged collaboration between members
      * Corrective action could be addressed immediately
    - Cons:
      * Unclear “definition of done” at the start
      * Uncertainties on clients desires
      * Potential scope creep

The Scrum agile approach was the best method to use for the SNHU Travel project. As designed, the process lent itself to flexibility and continuous communication. As was the case in the SNHU Travel, the agile approach is designed to allow pivots in project goals and scope. When the request to focus on wellness and detox travel was presented, there was no impact to the timeline and minimal regression of project progress because tasks (user stories) were prioritized, to focus on the main functions first, such as the app framework. Additionally, the scrum-agile approach goals, as designed started vague and narrowed as the project progressed. This was especially present, when the wellness pivot happen, because the main app was almost unchanged, and the destinations were easily swapped for the wellness destinations.

**References:**

Singh, N. K. (2024, February 21). *Sprint review vs sprint retrospective*. Agilemania. <https://agilemania.com/sprint-review-vs-sprint-retrospective>