**7-1 Final Project Submission: Sprint Review and Retrospective**

Tomas J. Estanislao

Southern New Hampshire University

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Professor Art McWain

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* 1. **Final Project Submission: Sprint Review and Retrospective**
* **Applying Roles**: Demonstrate how the various roles on your Scrum-Agile Team specifically contributed to the success of a project. Use specific examples from your experiences.

The **Scrum Master** focused on developing the Agile team charter and running the Daily Scrum. Regarding the Charter, this is a document that lays out behaviors and communication practices for the team to follow. The following items are defined: Business Case, Mission Statement, Project Team, Success Criteria, Key Project Risks, Rules of Behavior, and Communication Guidelines. For the Daily Scrum, they assisted with keeping the team on task, sticking to a timeline, and interceded on their behalf to ensure that each team member stays productive. One example is addressing the concerns of stakeholders through the enforcement of proper procedures. The Scrum Master is the facilitator, organizer, and bridge between the development team and the Product Owner.

The **Product Owner** led a focus group with SNHU Travels’ best potential customers. They were consumers to competing niche vacation providers. Since one of the Product Owners’ primary areas of responsibility is creating user stories, it was necessary to collect first-hand insight into the needs of the userbase. One way this was successful was making is easier to write user stories from the users’ perspective— which consequently allows the Product Owner to better evaluate the value of each need and requirement. These user stories also lay the groundwork to write test cases and construct a product backlog. They gave the development team context for how the travel website will fit the needs of each end user. The Product Owner had to identify and arrange the needs of the stakeholders.

The **Tester** worked closely with the Product Owner to identify ambiguities in the user stories— in order to turn them into test cases. Each test case needed to evaluate the needs of each story, as well as verifying the functionality of each feature. Initial test cases were created, and revisions were made based upon the clarifications by the Product owner. The tester clearly separated each bullet from the acceptance criteria within a test case. This allowed for all user scenarios to be covered, while also listed concise inputs and detailed expected results. Being so throughout provides the development team and product owner a clear vision of how each feature should be implemented. The Tester also did a good job with follow up questions such as: “Is the Slideshow contained and displayed within a single webpage or is each slide on its own page? Is there a certain color scheme or styling guide we should be following? Should there be functionality to bookmark or save individual vacations to a stored list? Should the deals be solely based on discounted vacation packages? What parts of travel history and user profile settings should factor into the filtering option?”

The **Developer** made changes to the initial deliverable to adjust to the Product Owners change in direction. This was reflected in the updates to the test cases, as well as in the clarifying emails. The Developer adjusted to format to a slide show with button presses to change slides, rather than a vertical scrollable list. They also changed the content of each vacation to better suit the new target theme. Better yet, they didn’t stop once the deliverable had been updated. The Developer constructed an email to both the Tester and Product Owner with relevant follow up questions that needed to be answered. Some questions included: “What should the criteria be for determining whether a trip meets the criteria for the new focus. Should we filter for keywords such as: health, wellness, and detox? Do we need to update the possible vacation tags associated with a trip? Are hyperlinks still necessary to implement for the service? If so, should the implementation be the same as the previous .jar deliverable? Is there a style guide and theme set in place for this version of the project?”

* **Completing User Stories**: Describe how a Scrum-Agile approach to the software development life cycle (SDLC) helped user stories come to completion. Use specific examples from your experiences.

The Scrum-Agile approach encourages consistent feedback from stakeholders. With openness and transparency, the stakeholders can be updated in the form of visual deliverables. This allows for important feedback, through with Product Owner can adjust the user stories and product backlog. Agile teams are cross-functional. They avoid “silos,” with team members often collaborating and technical expertise being shared. The team works together to address end-user needs and requirements from all perspectives. Unlike the Waterfall methodology, tasks aren’t limited to select individuals with set deadlines.

* **Handling Interruptions**: Describe how a Scrum-Agile approach supported project completion when the project was interrupted and changed direction. Use specific examples from your experiences.

**The Tester adapts to the change in the projects vision by communicating closely with the Development Team and Product Owner. They revised test cases to better fulfill the updated user needs, as well as asking for clarification to move forward. Agile provides the opportunity to switch directions sooner than if the Waterfall method was used. There is less time-commitment and cost if the product fails, but more opportunities to collect feedback. Especially with a short deadline, Agile allows for quick “sprints” to rapidly develop iterations of a project. The team is already used to daily changes and a fast-moving pace.**

* **Communication**: Demonstrate your ability to communicate effectively with your team by providing samples of your communication. Explain why your examples were effective in their context and how they encouraged collaboration among team members.

As a Developer, I adjusted rapidly to the changing requirements, and knew when to ask questions. Due to the vagueness, as well as a lack of updated test cases, it was imperative to follow up. Below is a sample of my communication.

A paper with text on it

Description automatically generated

A white and black email

Description automatically generated with medium confidence

My sample was professional, concise, organized, and specific as to the information I desired to be addressed. I divided my questions into four bolded topics and included bullets for readability. My questions focused on both the target audience for the change in direction, as well as implementation details. I asked questions, but also provided examples on my thought process like: possible keyword options, adjusting user preferences, hyperlink implementation, and style guide rationale.

* **Organizational Tools**: Evaluate the organizational tools and Scrum-Agile principles that helped your team be successful. Reference the Scrum events in relation to the effectiveness of the tools.

The Charter laid the groundwork for the boundaries of the project. It laid out all the rules and procedures, while defining goals and potential issues. The Product Backlog organized the end user stories in terms of overall priority. This gave context into the most pressing issues and allows the team to divide task items. The User Stories details each end-user value statement, and lists acceptance criteria in “Given, When, Then” format. This formatting both describes each feature in readable language to non-technical audiences, but also allows for detailed project conditions. The Test Cases built off the previously defined acceptance criteria to list concise user inputs and descriptive expected results. The focus is from an engineer’s perspective. The “Given, When, Then” format translates smoothly into “Pre-Conditions, Inputs, Expected Results” respectively.

The second agile principle, welcoming changing requirements, allowed this project to succeed. The product backlog was updated due to new stakeholder needs. This also led to the swift revision of test cases and deliverables— even when so late in development. The client sought to change requirements in order to gain competitive advantage, and it was our responsibility to harness that change. Another relevant principle is the sixth, face-to-face conversation. Not only is it important to communicate within teams by email, but real-time interactions are critical to efficiency. Daily stand-up/scrum gives an opportunity to update the team on progress, address concerns, and plan your day. Doing so ensures that everyone is aware of the current state of progress and allows issues to be quickly resolved. It is also an opportunity to sidebar topics and plan future meetings face-to-face.

* **Evaluating Agile Process**: Assess the effectiveness of the Scrum-Agile approach for a specific project. Address each of the following:
  + Describe the pros and cons that the Scrum-Agile approach presented during the SNHU Travel project.

The main pro to the Scrum-Agile approach is the ability to rapidly develop a project with over continuous iterations. Given the SNHU Travel projects short five-week deadline, developing prototype deliverables quickly was crucial for presenting updates to stakeholders. This allowed for the shift in project direction late in the timeline. The main con to an Agile approach with this project was the limitation on planning and documentation. The deadline was set at five-weeks, but aside from that, estimating the cost, time, and resources required is unclear. Regarding documentation, there can be a lack of detail and clarity as project requirements change. This is because Agile maximizes the amount of work not done. Visual, deliverable, results are preferred over technical documentation. This is why there was a significant amount of follow up questions between Developer, Tester, and Product Owner— regarding both the initial and revised User Stories, Tests, and Deliverables.

* + Determine whether or not a Scrum-Agile approach was the best approach for the SNHU Travel development project.

Small projects with short deadlines and rapidly changing requirements work best with Agile. Breaking down the project into smaller measurable tasks allows for reasonable estimation. Being able to prioritize the kind of work being done, such as with a product backlog, ensures that the most critical items are completed first. Consequently, this results in the continuous delivery of software releases. Doing so gives the SNHU travel stakeholders the opportunity to see the results of the project, provide feedback, and adjust the deadlines.