# Chada Tech Agile Implementation

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## Various Roles in the Scrum-agile Team

The implementation of the agile development model led to the creation of member specific roles in defined teams. A team consisted of a Scrum Master, Product Owner, tester, and developer. The scrum-agile team carries out specific organizational activities to help structure an evolving workflow. Limiting the scope of each member's duties establishes order within the group, increasing the overall efficiency and effectiveness of the Scrum-agile activities.

Arguably the most important role of the team, the Scrum Master is the established leader and troubleshooter of the scrum-agile team. The selection process of Scrum Masters for this project was especially important, as many employees expressed reservations and difficulties transitioning to an agile development methodology. Scrum Masters selected were self described as a "complete convert", and expressed interest in helping others make the transition. In addition to these case specific traits, the Scrum Master catalyzed effective team communication. In team meetings this was achieved by allocating discussion time for every team member, as well as emphasizing member's personal responsibilities to the team. At times, the Scrum Master was required to interject in team discussions, table certain topics or questions, and provide general moderation for the group. In addition, they were required to do much of the record keeping in the form of updating and archiving user stories, information radiators, and other key data.

The Product Owner is another established team leader. The product owner is less involved with the day to day management of Scrum-agile activities, but still plays an important part of the team. The Product Owner of this project worked to set initial goals and values of the project, as well as provide an initial project direction. The Product owner gathered end users to develop user stories, providing key information for the rest of the group to work off of. Further down the timeline, the Product Owner adjusted the direction of the project to focus on destinations targeting relaxation.  Although the change was not drastic, it altered the scope of the project and ended the inprogress sprint.  The product owner ensured the change could build off of the previous work, without altering the timeline for product delivery.

Although the developer is not an established product leader, their work and feedback has the most influence on the day to day direction of the project.  In a daily meeting, they update their progress on current tasks, provide useful project information to other members, may ask for assistance or time extensions, and relay their plans for the day.  Although their direction may have less of an influence on “big picture” items, their detailed work and analysis is the backbone of the project development.  The developers turn the project goals and ideas into a working product.  Scrum-agile developers create working programs far earlier in the timeline than their waterfall counterparts.  Waterfall programs rely on strict initially set guidelines, allowing them to develop theoretically functioning programs over a longer time span.  To ensure the flexibility of the project, software is incrementally developed and submitted functioning to the testers.

## Software Development Lifecycle

The first stage of the project involved meeting with the team and the client.  The team was briefed on the client’s business, and their vision for an online vacation planning service.  A mission statement was drafted, and all information collected was recorded in an Agile Team Charter.  Project success criteria, project risks, and other calculated data were added to the charter.  This document also included info about the team including team member names, positions, team behavioral guidelines, and more.

End users were brought in, and were polled for relevant thoughts on the service.  Their ideas were transformed into user stories, which guided the team in the design of the website.  Each story was given a difficulty level, and assigned a spot in the queue.  Although the project manager was to alter the scope of the project later, many of the general concepts from the stories could be adapted to fit the new constraints.

The main advantage to using the agile methodology, is transforming the SDLC from one large cycle, to multiple smaller ones. The overall cycle can be broken down into smaller ones called sprints. There is a design, execution, and review phase for each sprint, resembling a mini life cycle of its own. Agile processes demand working software to be developed from early on, allowing the smaller cycles to include their own testing and deployment as well. With each sprint-cycle, client requests and product modifications could be accounted for in the sprint planning phase. In the case of this project, the transition was made from a broader scope of vacation destinations, to exclusively ones based on relaxation. The adjustment was accounted for in the next sprint planning phase, and the project deadline was maintained.

## Scrum Tools

As mentioned in the previous section, an Agile Team Charter was crucial in laying the foundation for the project. User stories were generated, and those stories were reformed into tasks during the sprint planning phases, and daily meetings. Daily meetings played an important role in keeping open communication within the team. It allowed each member to check in with the group, and receive help or additional resources if necessary. These frequent check-ins ensured information was dispersed throughout the group, and no single member was privy to a specific part of the project. Pair programming provided a similar benefit, offering help to those who required it and ensuring the absence of a team member didn’t result in a great loss of knowledge. Although this agile tool provided a certain level of knowledge redundancy, it did not come at a cost of efficiency. Additionally, this and other tools helped emphasize personal accountability of the members and enhanced their team working skills.

On a more physical level, the Kanban board provided a tangible way for the team to plan, store, and review information. This board was crucial in daily meetings and various sprint phases. The information on the board was backed up by the Scrum Master after every meeting. If a review was required of past events, the archived information could be retrieved from any given workday. The information could also be shared on a separate information radiator, often of the virtual type. There are many programs that offer this service, and can be of great benefit within a decentralized team.

## Overview

The Scrum-agile methodology provided an effective way to organize this project. Even though the team was small and localized, the method used ensured good communication and an organized workflow. Some of the more introverted members may have considered the frequency of team communication to be a negative, but overall it was of benefit to the success of the project. Changes made to the project goal were easily integrated, given Agile's open ended SDLC, and the deadline was not subject to change. Based on the information reviewed, I believe the Scrum-agile approach was the best approach for this project.