SNHU Travel Project

Scrum-agile and Waterfall: A comparison

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The Roles of a Scrum-agile Team

Scrum Master –

- Facilitates the Scrum events
- Provides education on agile methodology
- Resolves impediments to the agile process

Product Owner –

- Responsible for the vision of the product
- Manages the product backlog
- Keeps constant communication with stakeholders and the team

Developer –

- Self-organized, cross-functional group with no titles or sub-teams
- Delivers features during sprint
- Makes updates to Scrum board
- Peruses technical excellence

* (Overeem, 2016)

SDLC Phases of the Agile Approach

- Planning – At the start of each sprint, plan out which user stories will be worked on.
- Requirements Analysis – Each user story should have the requirements analysis and refined during backlog refinement.
- Design – There Product Owner communicates with the stakeholders and development team to formulate the design.
- Coding – The development team implants the use stores that are pulled into the sprint.
- Unit Testing – Tests are written along with the code to find issues as soon as possible.
- Acceptance Testing – Once work is complete on a story, test that all acceptable criteria have been met.

* (*SDLC - Agile Model*, n.d.)

What About Waterfall? (part 1)

What if the waterfall development approach was used?

- All planning would have been done up front, spending a lot of time on it to try to plan for everything before starting to code.
- Testing is not done until the project is almost finished.
- No feedback is gathered on the project until the end of the development process.
- If there are any issues or changes needed, the entire process starts again.

* (Cobb, 2015)

What About Waterfall? (part 2)

In the case of the SNHU Travel project an example of where the waterfall approach would not work would be the change from a list of top destinations to a slideshow of top destinations.

- Feedback is not gathered until the end of the project, so you would need to go back, redoing a lot of work, to get this change added.
- If the stakeholders requested this change during development, it would not be possible to change it as the waterfall methodology does not allow for the plan to be easily changed or modified once started.

* (Cobb, 2015)

Agile vs. Waterfall: A Comparison

Factors For Consideration

- Project Transparency (Agile Wins) – Project transparency if essential for effective teamwork and to quickly and efficiently work. Scrum events and information radiators give the win for this factor to agile.
- Feedback (Agile Wins) – Constant communication with the client helps to ensure the product being created is what the client wants. With the waterfall method, there is no feedback from the client until the product is delivered. Therefore, the win again goes to agile for this factor.
- Adaptability (Agile Wins) – Being able to easily act on feedback, either directly from the client or through testing, is essential to producing a quality product. Agile is structured to be able to adapt to changing circumstances, whereas waterfall is not. Thus, the win for this last factor also goes to agile.

References

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