Daniel Anderson

Software Development Lifecycle

**Final Project**

While using agile may seem like a monstrous task when coming from the waterfall method, you can clearly see the benefits of using it and how each team member has their own roles to play. When looking at the SNHU travel team you can see how the project owner was in direct contact with different people to ensure certain things were added to the website. The project owner also gets the ability to change the backlog as things get brought to their attention and to help plan future sprints to ensure the project is completed on time. In direct line with the project owner is the scrum master who not only communicates with the owner but also the rest of the team to assign tasks. Scum masters have plenty of tasks to take on that involve keeping their team on task during the sprint. Helping the team is key because it allows him to make minor adjustments as the sprint goes on and sending any new issues to the project owner. The SNHU team used this method when the project owner got new information from a study to ensure the developers and testers could add them in during a sprint. The developers and testers take all the information that is provided to them by the scrum master and use that to create the product. Daily scrum meetings are excellent tools for the team to use and share any information that may help or hinder the project with the rest of the team. The SNHU travel team used this to help develop a website that was aimed at the needs and wants of the customers that the product owner found.

The software development lifecycle (SDLC) greatly benefits from the agile methodology and how flexible the methodology is. Breaking down how the agile method works you can see that a project manager creates user stories based on what needs to be completed and what has been completed throughout the project. The project manager takes the user stories and delivers them to the scrum master to ensure that it is sent out the teams to be worked on. Scrum masters can assist not only the development team but updating the user backlog to help the product owner prioritize the correct user stories. Scrum masters must over see their teams with weekly scrum meetings to help stay in communication and can narrow down and have 1 on 1’s with any struggling team members during the sprints. Breaking down to the developers and tester level of the agile method you can see how making these small sprints helps them stay focused and getting through milestones more effectively. The team must effectively communicate with each other through daily scrum meetings that allow them not only to share their personal progress but also any issue that may have occurred during the current sprint. Will all the different roles it really assists in getting through anything that may come up during the sprints. As seen in the SNHU travel project things can changed based on information that project owner obtains from outside sources. The team had to adjust from just making a top ten travel destinations to top ten spa and detox resorts. This change was easy to adapt to because the team already had a list established and just had to refocus the search engine to target the correct locations. Changes can happen quickly and need to be solved in a very timely manner based on there importance. When changes happen at the top the product owner must create a user story that the scrum master can use to give the proper information to his team. The scrum master must than bring that information to their team at the beginning of the sprint to ensure the team knows the task at hand. The start of the sprint is always an important time because does it not only allow time for the team to understand what they goal is but to also bring up any issues that may have been overlooked at the weekly scrum meetings. This shows the importance of the weekly scrum meetings that they team has with the scrum master and the amount of information that must be shared. After the weekly scrum meetings, it than boils down to the daily scrum meetings which is a major part in keeping the team on the same page with each other. Daily scrum meetings do not need to be longer than 15 – 30 minutes because the purpose is to state what you have accomplished, what you plan to accomplish, and any issues that have occurred in the current sprint.

The waterfall method has many different approaches to steps when compared to the agile method. Starting at the top there is no product owner to help prioritize the important steps before other steps. This can cause issues down the road when certain problems pop up and are not taken care of quickly and timely. Another big difference is the waterfall method does not use sprints to break up sections, the waterfall method is more like a marathon race to complete the product. Since you are not broken up into teams there is a lot of information that might get left out or missed by other people who are working on the project. The waterfall method is great when the end goal does not change and there will be no changes to the product along the way. Another benefit to this method is when the timeline doesn’t change or when it does not need to be extended to fit different needs. With all the being said the waterfall method is prefect when requirements are all known and there will be little to no changes during the project.

Choosing between the waterfall method and the agile method may seem like a huge task to undertake however it can be easier to make depending on the project. The cost of project is a great way to see which method would work better, with that in mind waterfall will be cheaper because agile can change with what is needed. The next big thing is timeframe, this is important because this can also tie in with the cost of the project. When looking at waterfall you can see that the timeframe does not have a lot of flexibility when compared to agile which makes agile better if you are unsure of the exact timeframe. The final big thing that determines the method that works best is the known requirements. If the requirements are known and they will not be changing than the waterfall method is the method that works best. If the requirements are not known or very little is known than the agile method is the better option because of its ability to be flexible and change. The greatest benefit of agile is the ability to be flexible when the timeframe and requirements are unknown or have a huge chance of changing what the end goal will look like.