Process

Agile methodologies have become increasing popular within software engineering companies over recent years. Such processes are known

This project was developed with single person scrum methodology.

Scrum is an framework for managing work with emphasis on software development, first used by its inventors Jeff Sutherland, John Scumniotales and Jeff Mckenna in 1993.

As this was an individual project there were many parts of scrum that could no be implemented. Scrum teams, a scrum master and the project owner were all combined into one. Once the project idea was presented, a backlog was created with all the requirements possible. After this, I prioritised each item in order of high and low priority. The priorities were ordered based on two factors.

1. How dependant other items were on a single item
2. How much value each item would add to the project

Once the backlog had been created, the backlog was broken down into estimation.

As this was a single person project, no one task could be completed along side another. This resulted in splitting working days into different time allocations to work on alternate sections of the project. Working on different parts and switching frequently throughout the day to keep engagement high. A ‘scrum meeting’ was held every day, during which the tasks for the sprint were noted and estimations given. At the end of every working day any work would be noted and compared to the original estimation and specification. If any requirements were missed, they would be added during the next sprint; this would alter any further estimations until all work defined in a sprint was completed during the sprint.

User stories also played a key role. Having a user story allows a goal to be defined as achieved, or a specification deemed as met. Initial User stories were first created upon gathering the general concept for the application, e.g. “As a user I want to be able to access the sensors found in mobile phones through an application”. These broad stories were then broken down into sprint size sections, aiming to complete a target of 1-2 stories per sprint, this would ensure that requirements were being met, and estimations were accurate. Conditions of satisfaction were added for each individual story, as smaller stories contributed to the conditions of satisfaction of the broader stories.

**Design**

Scrum emphasises doing only what is necessary (and no more). Taking this into consideration, Designs would be implemented if and only if they had any direct impact on upcoming items in the next sprint. Traditionally, a waterfall style approach would look at the topics of design, testing and implementation separately; with one section having to be totally complete before starting another. This approach would prove too time consuming, by using scrum one is able to complete a sub section of these tasks, such that it allows them to progress to the next section of their work.