

The Waterfall Method



Requirements (8th February-16th February):

In this stage, we were given the requirements of the project, which was to develop any kind of project like a unity mobile app, a react js web application or react native app. The main purpose of this project was to recreate a scenario where we (the students) are working in a company and we are expected to work together as groups of twos or threes. We would then create a project within a given deadline and in a professional manner. This would mean that we need to use concepts from previous modules like professional IT skills to show we understand principles like sprints, testing and definition of done.

Design (23rd February-30th February):

In this stage, our group had chosen the intended project to create. A website gym app that tracks your exercises, diet and days worked out in order to obtain the desired body. We design user stories which helps us get into the point of view of the customer and plan out features that would be implemented into the project. The features were then

Implementation (1st March-30th March):

The implementation are as followed, react js which acts as the front-end of the project and a node js and MySQL database as a backend to create, read, update and delete data. On first loading the website, the front end takes you

to the home where the user has the option to use the BMI calculator, BMR calculator or login to their account. The backend is where the users can create their own person account and customise their personal workout routine. The front and back end communicate with one another via proxy middleware. The front end would run on localhost:3000 and the backend would run on localhost:3001. A JavaScript class is created where the back end's port number is set as a target for the front end. This tells the front end that another port number also exists and it won't block it because it is a 'malicious site'.

Verification/Testing (1st April-15th April):

The idea behind the testing of this project is to take the user stories and see if they fulfil the user's need. For example, a login component's main purpose is to log into an existing account created by the user, if it doesn't do that, then it hasn't been programmed properly. The test was done using selenium IDE which is a chrome extension tool that allows users to run unit tests on websites by targeting a specific section of the site and performing an action like inserting values into input boxes. Each component was given a pass or fail based on the expected output. All the failed tests were then further examined by the developers to fix the issue(s) affect the component. The website then goes through a regression test where all components are tested again to make sure that any new changes don't also affect the components that previously passed the unit test.

Deployment and Maintenance (16th April-29th April):

Once all tests all complete, all user stories fulfilled and front end and back end are connected, the project will be deployed on GitHub and Docker where anyone interested in our project can copy it and use it if they wish. The great thing about GitHub is that there is a section for reporting bugs so we can view them and fix them in the new version of our project.