**Assignment 2 Report:**

**Brief description of RunForever:**

Run forever is a simple mobile application in which aims to help users record any runs that they intend to do, taking the distance travelled and the time it took to complete the run and showing it to the user when a run has been completed. The application will also let users look at their personal run data and see how far they have run and the length of each run that the user has completed. The user will also be able to enter in their information such as name and age into the application to make the application feel more personal to the specific individual using the application.

**Keyworks:**Running, Fitness, Maps, Lifestyle, customisability.

**Screenshots:**These screenshots have been chosen to show users what my application is all about and to give users a feel of what my application will be like when they are using it.

**Design Rationale:**

During the development process, I have been

**Development Process:**

Whilst developing my mobile application, I have used a range of different software tools and API’s to assist in the development of my application.

The first tool that was used and the most important by far is the ATOM text editor. I have used atom as my text editor rather than other text editors as it is a clean and powerful text editor, with features such as having more than one project open on the same page at the same time, enabling easy swapping from one project to another, which is good for prototyping of features. This is the case because by having 2 or more projects open, it gives the ability to create small parts of code that can be easily tested to ensure that they work correctly before implementation of the features. Another reason as to why ATOM was my choice of editor was because that it is free and open source, meaning that other users can develop custom plugins for the editor making it meaning that it gives more features than other text editors. ATOM Also can connect to GitHub, the version control website that I am using to build my application using PhoneGap Build making it much faster to update the code and build than other text editors.

The second tool used was GitHub. GitHub was used to ensure that I had a way to keep track of all of the files in the project and to ensure that I had a record of all of the changes that were made to the project. It also meant that I could easily build the application using PhoneGap Build which was another tool that was used in development.

PhoneGap Build was the tool that I used in order to build the application into .apk files, this was used instead of Android Studio or Visual studio, as I wanted to experience making a mobile application with something other than visual studio and I felt like android studio was a big learning curve when I could just use PhoneGap Build. Another reason why is because it enabled me to use GitHub in conjunction with PhoneGap Build in order to store the files for the application.

When developing my application testing to ensure that the code was running correctly was a big part of developing my application. To do this I used PhoneGap Builds debug mode with weinre.

I had to use this method as there is no other method in which you can debug the code unless it was built in other development tools such as visual studio or android studio.

The process in which I undertook to debug my code was to firstly have code written so that when a function was triggered, an alert appeared on the screen to show that the function worked when I tested it.

**Part 1: The Application**

Your submitted application should be contained in a single zipped folder and include the following:

1. A redistributable mobile application file (APK, IPA etc.)
2. All of your source code (project files)

The zip filename should follow this structure: COMP3361\_002\_1\_*studentnumber*.pdf

**Part 2: The Report** (1500 words indicative)

Your report must be submitted as a single PDF file. The word counts are indicative of how much you should write for each section. Your report must include the following sections:

Use two carefully selected screenshots and indicate the keywords you would use to describe your application.

**Design rationale** (600 words indicative)

Highlight design decisions made and the underlying constraints that influenced your decision (screen size, battery life, etc.)

**Development process** (600 words indicative)

Discuss the appropriateness of the development tools used. Highlight key implementation challenges and discuss how you addressed them. Outline your approach to testing and debugging your application.

The report filename should follow this structure: COMP3361\_002\_2\_*studentnumber*.pdf