Be.fit GPS logging App

Application Design Document

v1.0

Developed by:

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1 Introduction

1.1 Purpose

The purpose of the application is to allow a user to login and record their journeys on a simple user interface, also the user must be able to view their journeys on the application and sort them by time or by distance.

1.2 Scope

The application should allow a user to either login or register as a new user if they don't already have an account already. Each user will be able track their journeys while using the application and save them to the created database. From this the user can then call back a list of either all the journeys, the top ten longest journeys by time or the top ten longest journeys by distance. The application will also calculate the users BMI and print to screen.

1.3 Use of Document

The main use of this document is to outline the various design decisions that were made during the development of this application and any problems that were encountered during the development. Also in the document a clear set of instructions will be set out on how the application can be operated.

2 Application Design

2.1 Home Page

The home screen as can be seen in *figure 1*the application shows a simple login page that allows the user to either login with their email address and password or go on to the registration page. The red background and logo allow the page and the application to stand out and look a bit more professional. The registration button is transparent and underlined and brings the user to a login page once clicked.

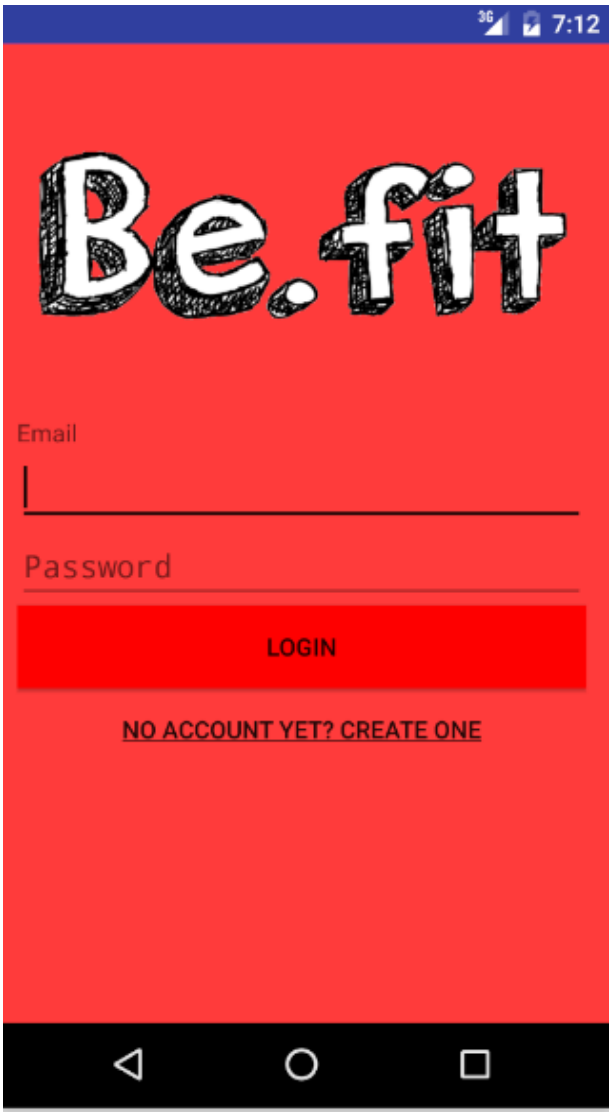

Figure: 1 Home Page

2.2 Registration Page

The registration page allows the user to sign up to the application by giving various bits of information in order to register. Once the user has inputted their information and confirmed that their password matched they are then brought back to the login page to login to the application. This path was chosen as it was the easiest to bundle the required information onto the home screen. On the Login page then the users email and password will be verified if they match they will be logged in or denied if they don't.

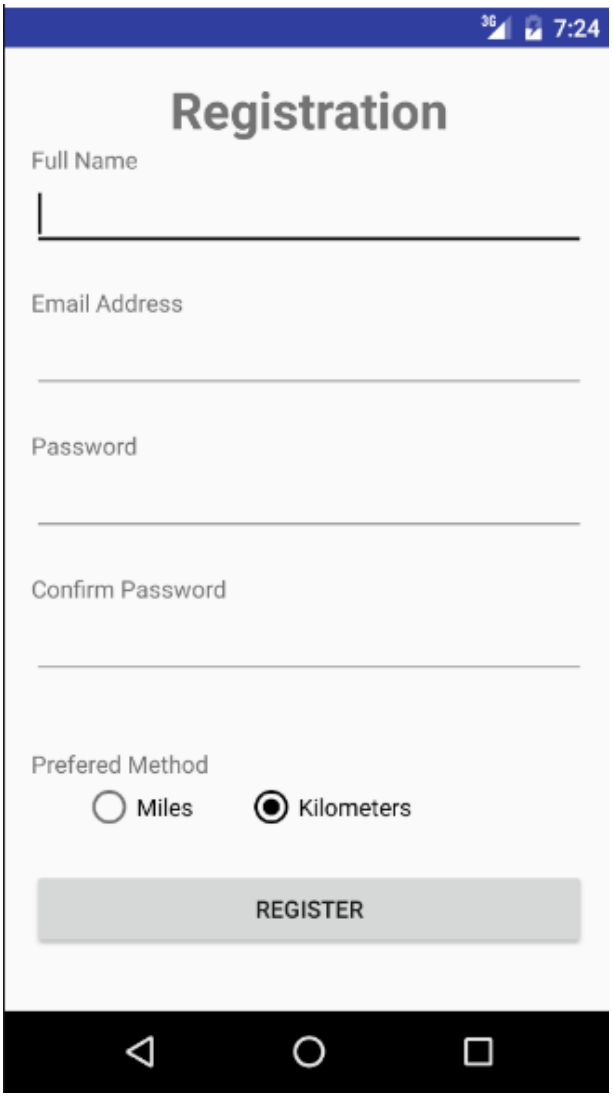

Figure: 2 Registration Page

2.3 Home Page

The home page is the main page of the application and most of the tasks can be carried out from this page. The menu can be found in the top left corner of the screen this contains the options to List all journeys, list top journeys by time, top journeys by distance, map options to change the map to Hybrid or normal. Also in the menu the user has the option to calculate their BMI. On the top right corner of the page there is the option for the user to select whether if they are either walking, running or cycling. In between these two options it shows the users name this is bundled throughout the application so that it will always show there. On the bottom of the screen there is the start stop button which will begin the journey and zoom in on the users current location. Once the journey is stopped it can be viewed as the last insert into the List all Journeys option.

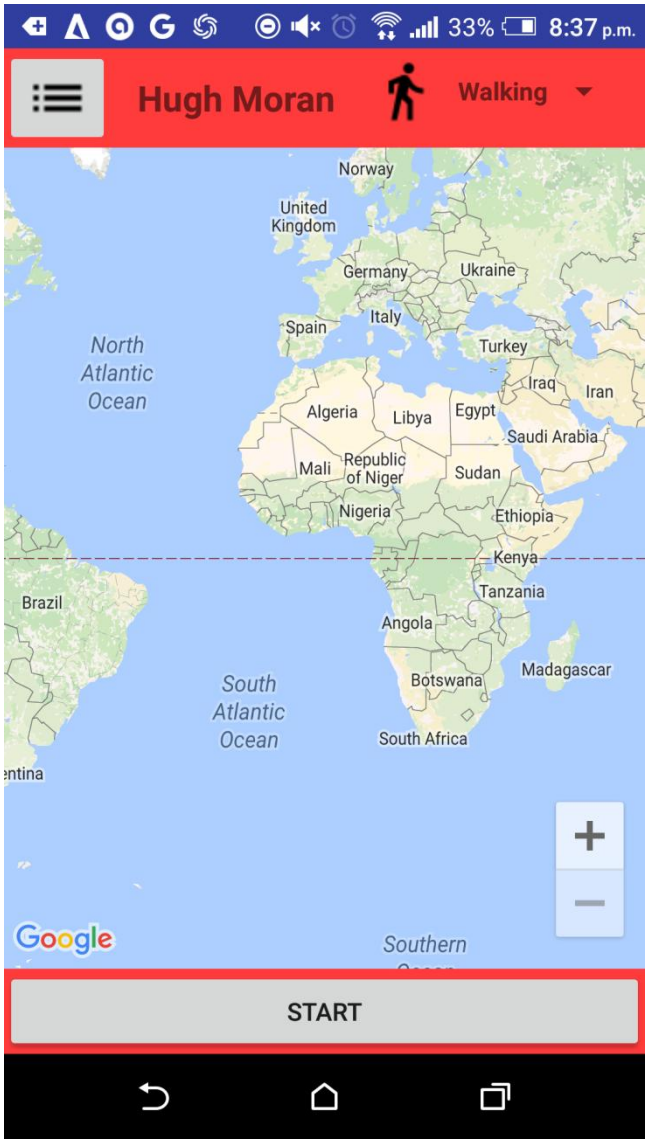

Figure: 3 Home Page

2.4 List Journeys Pages

There are three options when it comes to viewing the list of the journeys all using the same XML pages as they are the same design and layout. Each list gives a list of journeys that were carried out by the user along with the date and time taken to do the journey the image bellow shows the Top Ten Journeys by time. The other two options include top ten journeys by distance and view all journeys. The user can then choose a journey from these lists and this will bring them to the next page to view that journey.

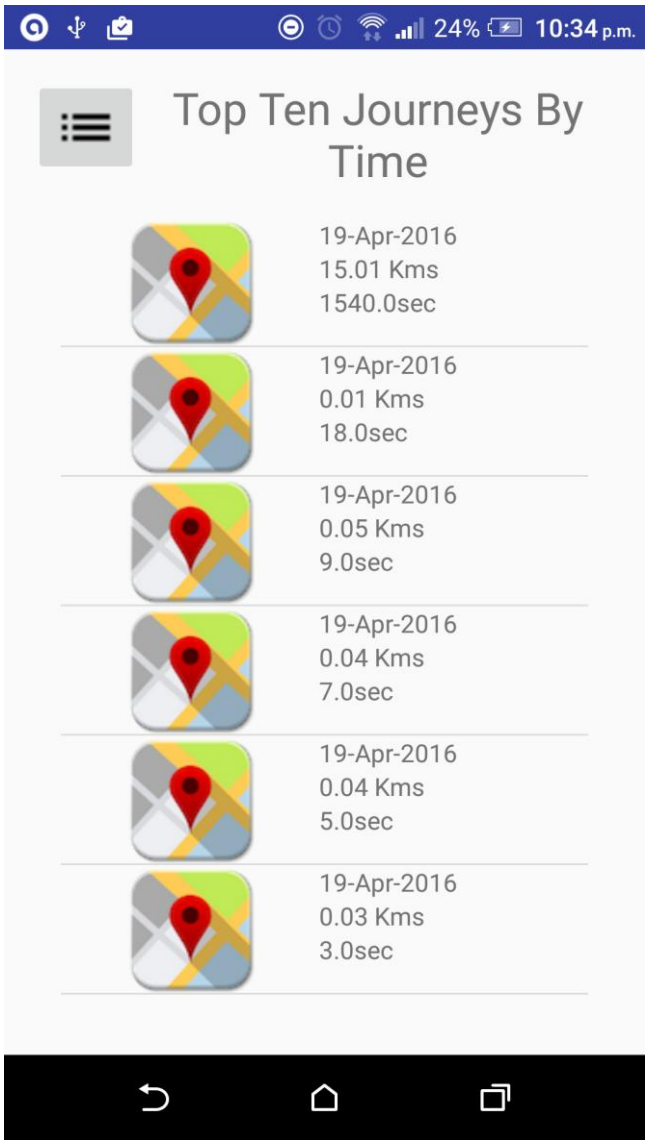

Figure: 4 List Journeys

2.5 Map Journey Pages

The map journey opens up the Google map that shows the start and end of the chosen user. This can be done for each journey made. From this page the user can go back through the application the same as each other page to view more journeys or log another.

Figure: 5 Mapped Journey

2.6 BMI Calculation

The BMI calculator is a simple page that adds a bit of functionality to the application. As the application is a fitness app i felt it was something that would add to the users usages of the application. The user is required to enter their height in centimetres and their weight in kgs and the result is given and are told if they are overweight, underweight etc.

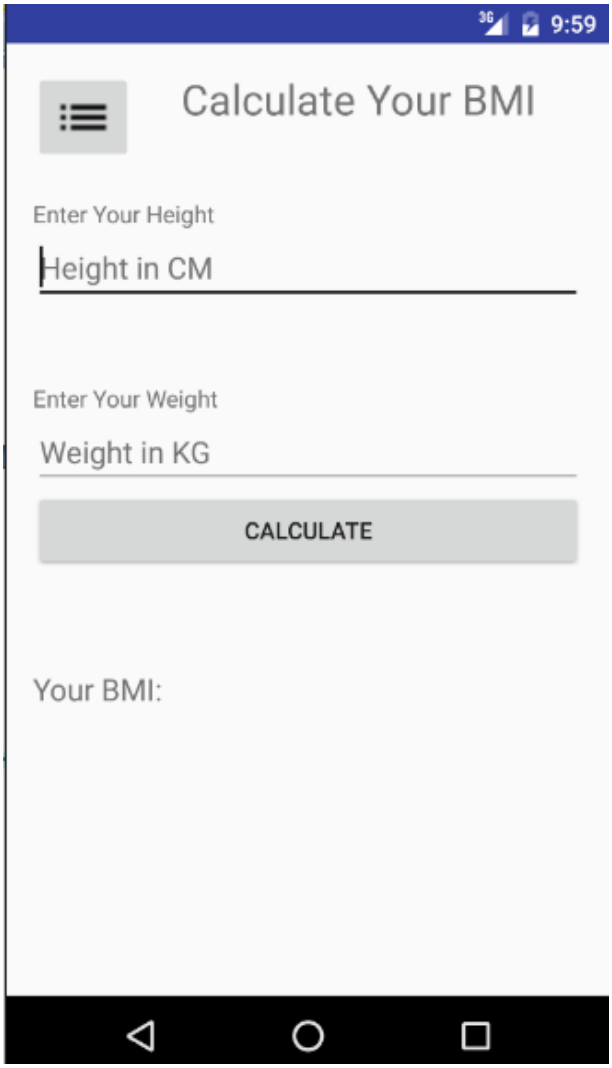

Figure: 6 BMI Calculator

3 Conclusion

In testing the application a mix of both the Android Studio Emulator was used and my own android phone (HTC M8). For the maps to work it was required to use the signed APK and this could only be viewed on the phone and not the emulator. In general the application is very easy to follow however falls down in certain places. When bringing back the map I would have liked to had the polyline to show the trail that the user took. However this was just out of my reach.