

2018

User Manual

UNIVERSITY OF LIVERPOOL – GROUP SOFTWARE PROJECT
GROUP 21

Description of the Application:

The application that you will be using is designed to assist when you may wish to travel on a bus network within Liverpool. Our application will use the GPS to track your locations so that you can get push notifications sent to your phone when you are nearing your target bus stop that you pre-selected when opening the application. Upon nearing the bus stop, our application will alert you that you need to make your way off of the bus making sure you never miss your stop again. We aim to make travelling around a near place quicker, safer and much less daunting.

Hardware and Software Requirements:

- Our application is designed to run on Apple's iOS mobile software and so you will need an iPhone 6 or later model running an up to date version of iOS (at least iOS 11.0) to ensure everything runs as it should.
- Your device will need to have GPS enabled.
- You will need to have a data connection available on your mobile device, alternatively you could have a Wi-Fi connection also.

Installing our Application on your Mobile Device:

- To install our application you will first need to create an Apple ID if you do not already have one.
- After you have created your Apple ID you will need to find our application in the Apple App Store. The App Store can be found on the home screen of your iPhone.
- After you have located our application, you will need to press install.
- Our Application will then be installed on your iPhone and you will be free to open the application once the installation process has finished.

How to use our Application

1. When you first use your application there are certain things you will need to allow permission for. The first of these being that you will need to allow for our application to send notifications to your mobile device. These notifications will notify you of when you need to get off the bus. To accept this, simply press “Allow”.

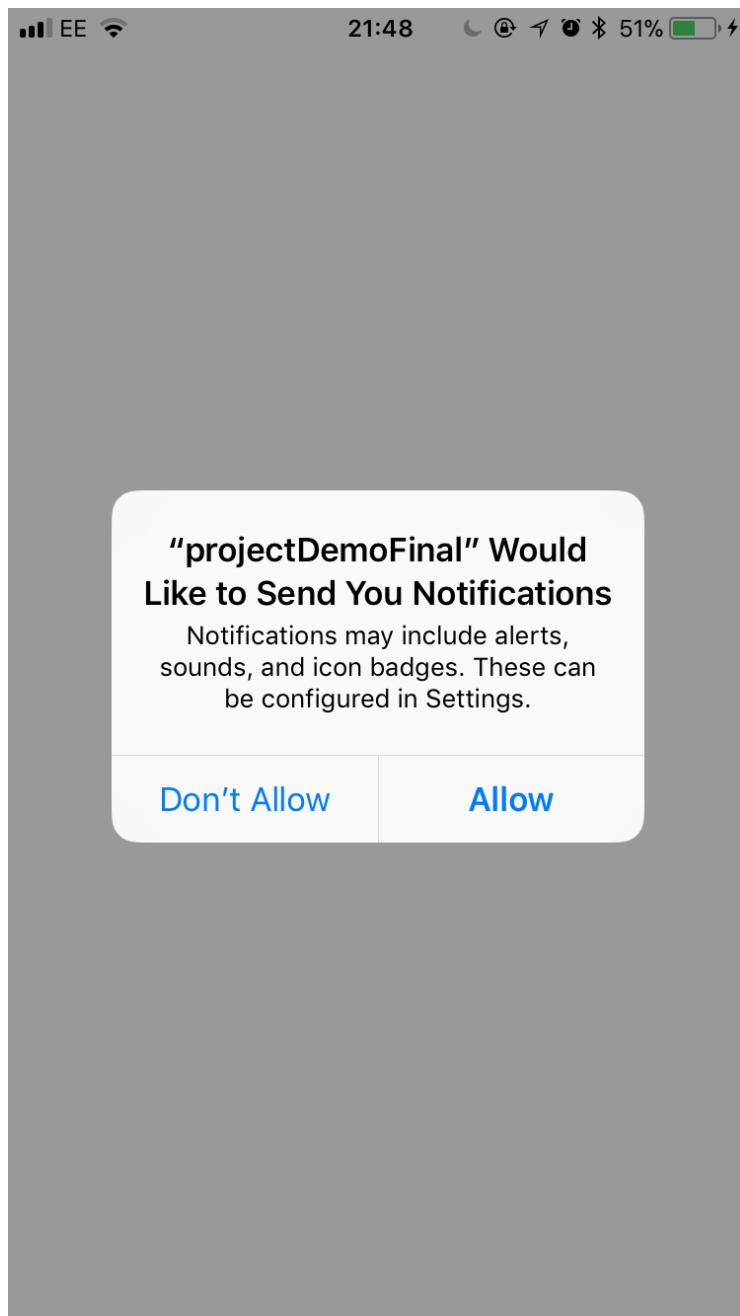


Figure 1:Ask for Notification Permission

2. You will then be asked for permission for our application to access your location through the Global Positioning System (GPS) on your mobile device. This is so that our application can track you so it can send you a notification of when to get off the bus. To accept this, simply press “Allow”.

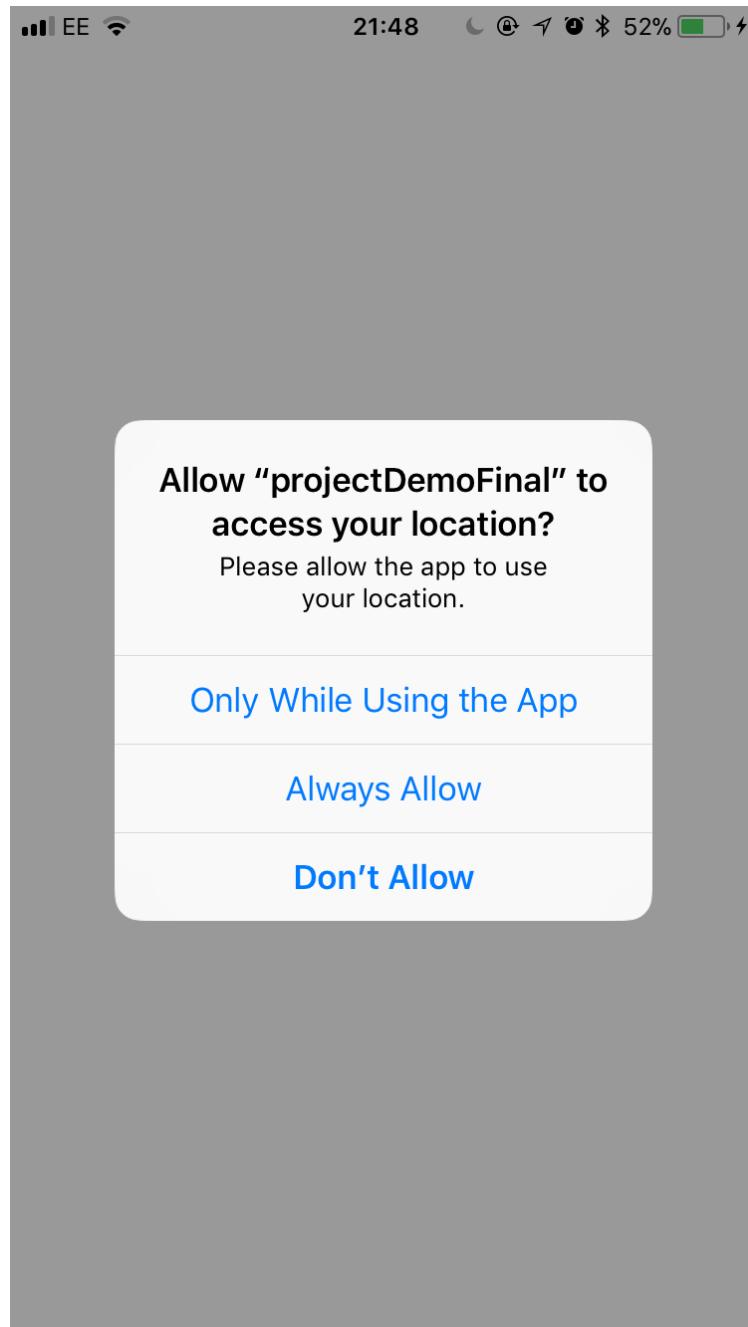


Figure 2: Ask for location permission

3. You will then need to choose the type of data connection you would like our application to have access to. A data connection is required for your location as well as getting information about your local surroundings. You will have a choice of WLAN only meaning only a Wi-Fi connection will be used. The second option is WLAN and Mobile allowing for a combination of Wi-Fi and mobile data, this is the option we would recommend however please note you should always check with your network operator to ensure you are not charged for using your mobile data.

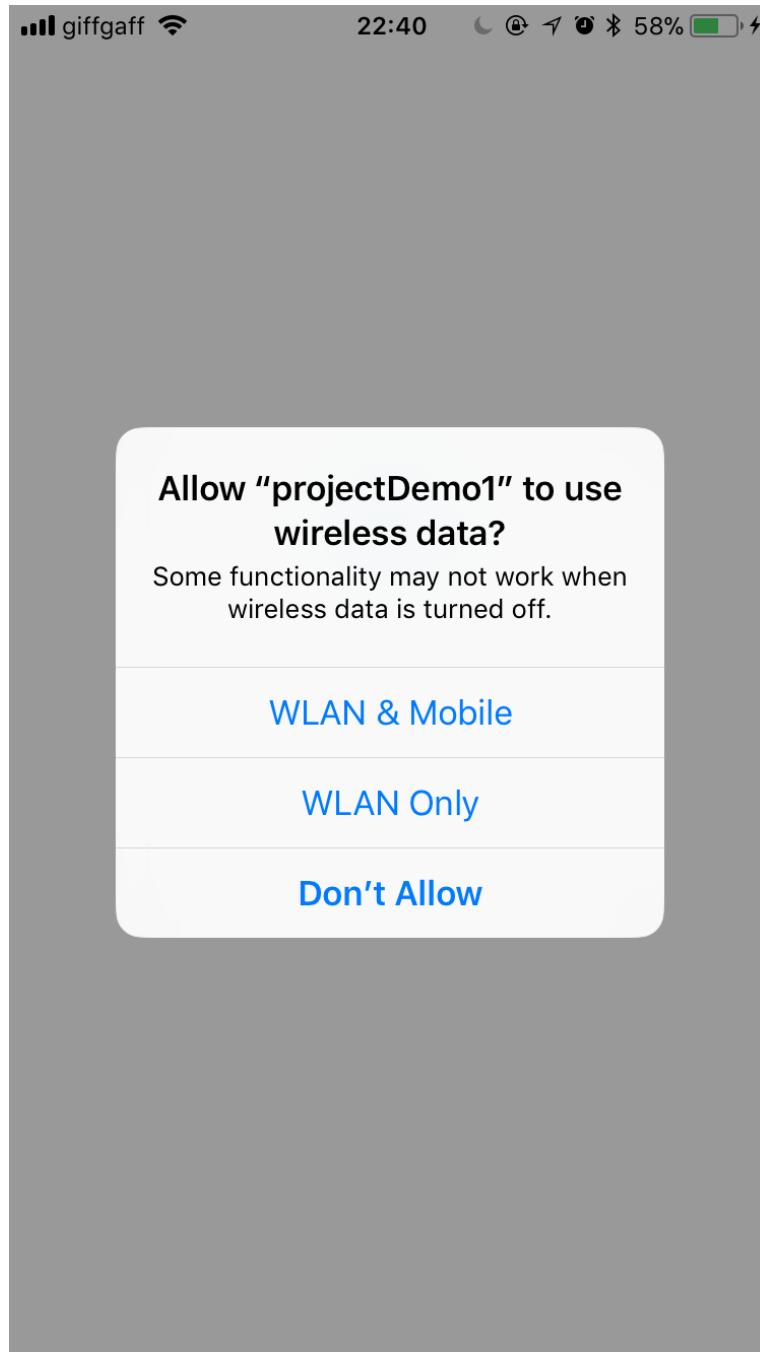


Figure 3: Ask for network permission

- When you first open our application the main screen will be displayed. Within this screen you are able to view your current location on a map using the “Locate Me” button. You are then able to view the Settings menu by pressing the settings button.

To search for a destination bus stop you will need to press in the search bar where it says “Search for places”.

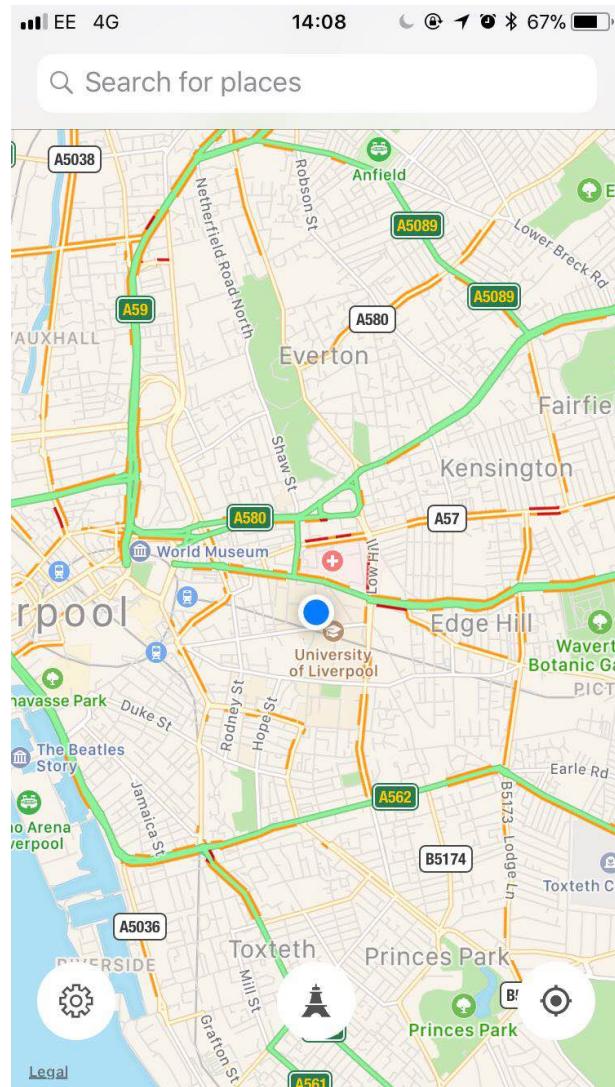


Figure 4: Basic Map View

After you have clicked in the search bar you will then be taken to the search screen.

When you are presented with the Search screen you will have the option to search for a destination. You are able to do this by typing the target bus stop on your keyboard. Our application will auto-complete the rest of the word for the user meaning they only need to type the first few words of their destination and can simply tap the required destination from the drop-down list.

To cancel destination entry and return to the Main screen, simply press the cancel button. Or if you simply want to clear the text, press the “x” button at the end of the search bar.

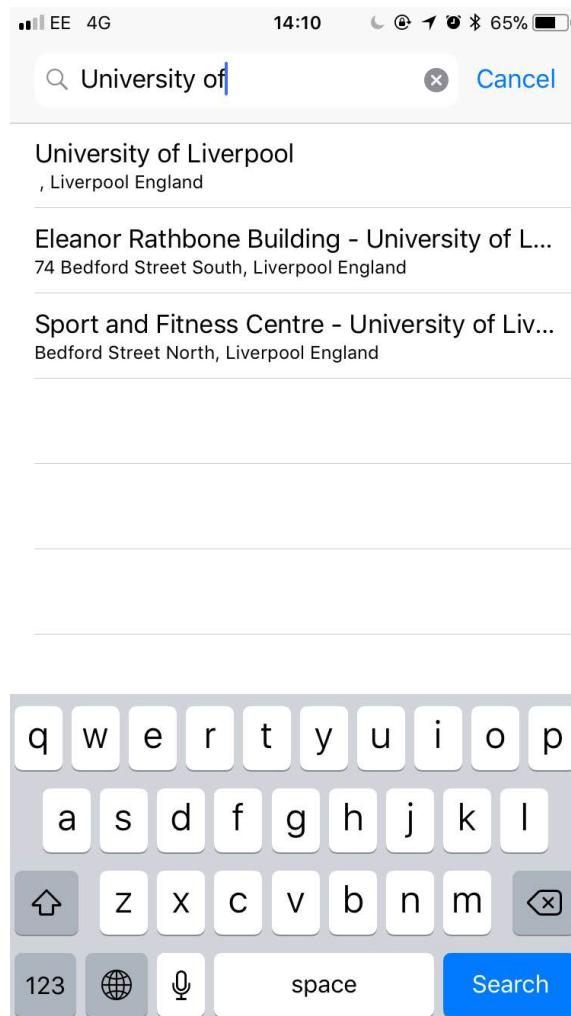


Figure 5: Search Screen

After having decided upon a destination, simply tap the required destination from the list and you will be prompted to confirm your destination.

5. The next screen you will be presented with is the Confirmation Screen. On this screen you will be able to see all of the local destination bus stops in the area on the map in the form of red pins as well as seeing your current location. You will need to tap the destination bus stop pin you would like where you will be able to see the name of each destination. You can then press "Select" to confirm the destination that you want. Another thing to noted is that our app provides functions for "exact search". If the user types in a name of the bus stop (containing keyword stop), our app would automatically annotate that location using a green pin (in contrast with other bus stops, whose pins are red). By doing so, it offers a more intuitive indication about where the bus stops they are aiming at is located. This feature is demonstrated in the bottom right picture.

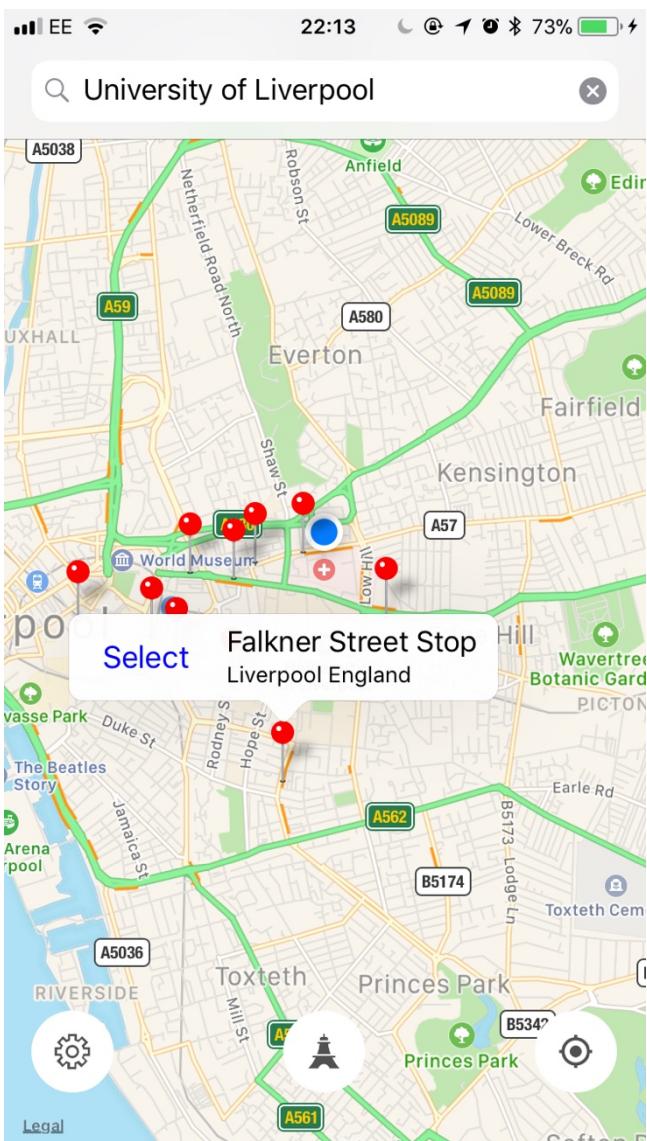


Figure 6: Search for a bus stop

After you have selected a destination and have pressed "Select", you will then be taken to the next screen.

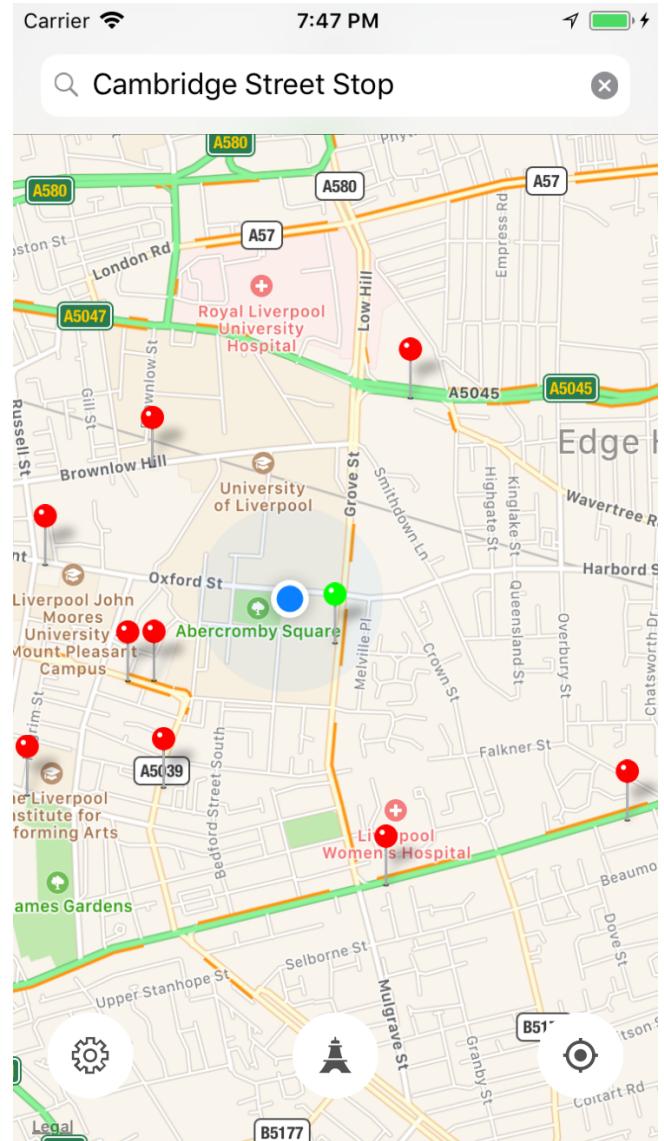


Figure 7: Search for a bus stop

6. The next screen you will be taken to is the Tracking Screen. Here you will be able to track your location while you are on the bus so that you can see where you are in relation to your destination. You will also be able to view your starting location as well as your destination to see how far you have travelled. A feature within this screen is the ability to see various Landmarks that are in your vicinity. You will see that the name of the Landmark appears as well as a piece of information about the Landmark. If you do not wish to see this then you can simply toggle this feature off using the landmark icon at the bottom of the screen. Also, we have provided the built-in advertisement function, allowing companies to promote themselves within our app.

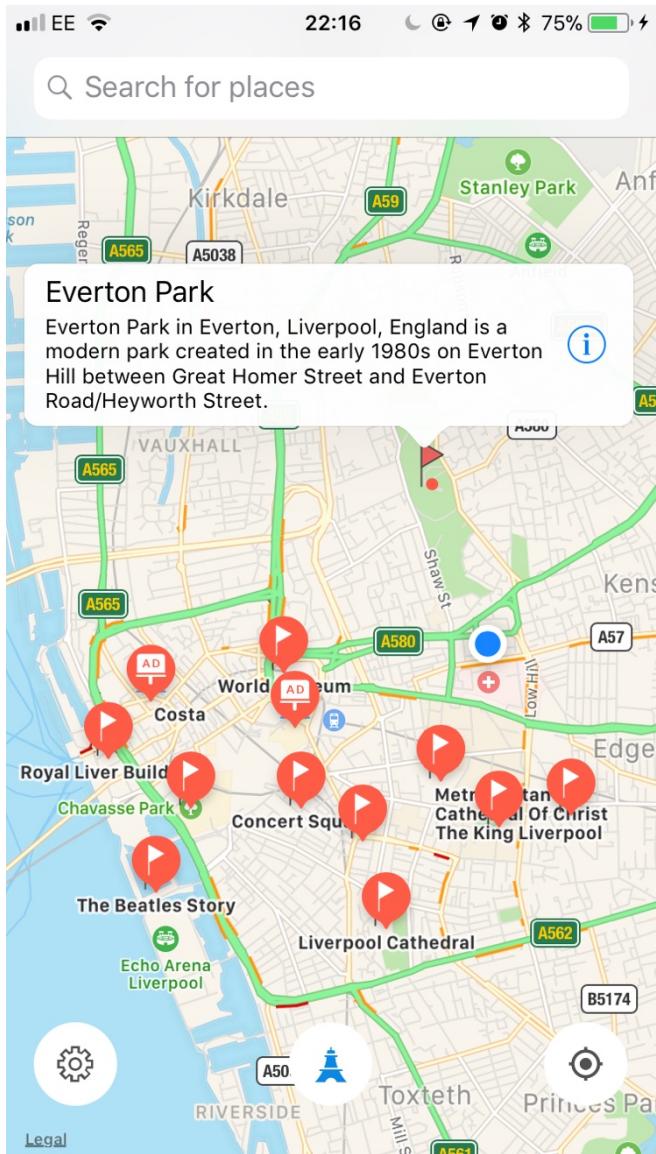


Figure 8: Landmarks and Advertisements

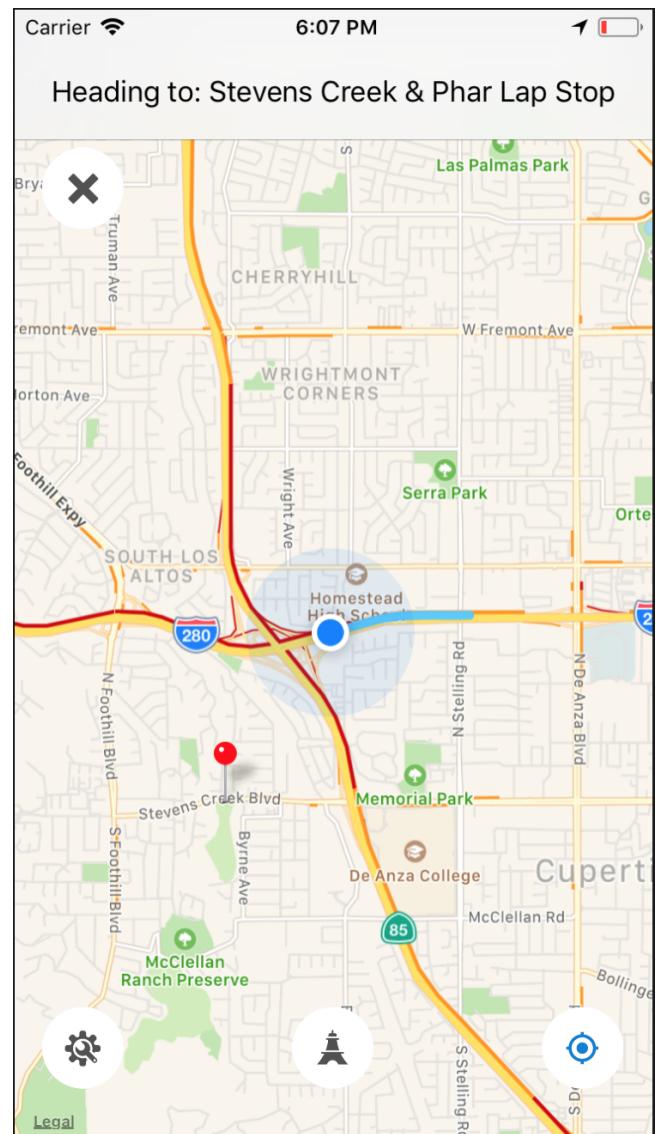


Figure 9 Tracking View

After you have reached your chosen destination bus stop, the Tracking screen will display a notification. If you wish to view more about a landmark, you can simply press the "i" symbol whereby you will be taken to the relevant Wikipedia page.

7. At the bottom right of the screen, there is a button having the shape of a target. It is used to relocate and lock down user location. By default, it is black, indicating not activated. Once activated, it will turn blue. If triggered, the screen will be centered on the user's current location. If the user pinch, zoom or drag the map to some other locations, the map will be automatically restored to current location in 3 seconds. Otherwise it would simply "lock the user down", changing the focus as the user moves, placing the user at center all the time. If not triggered, the user has the freedom to explore the map, with no restriction and no bouncing back. However, the map's location will not be updated regularly, meaning that the user might reside outside the map's focus.

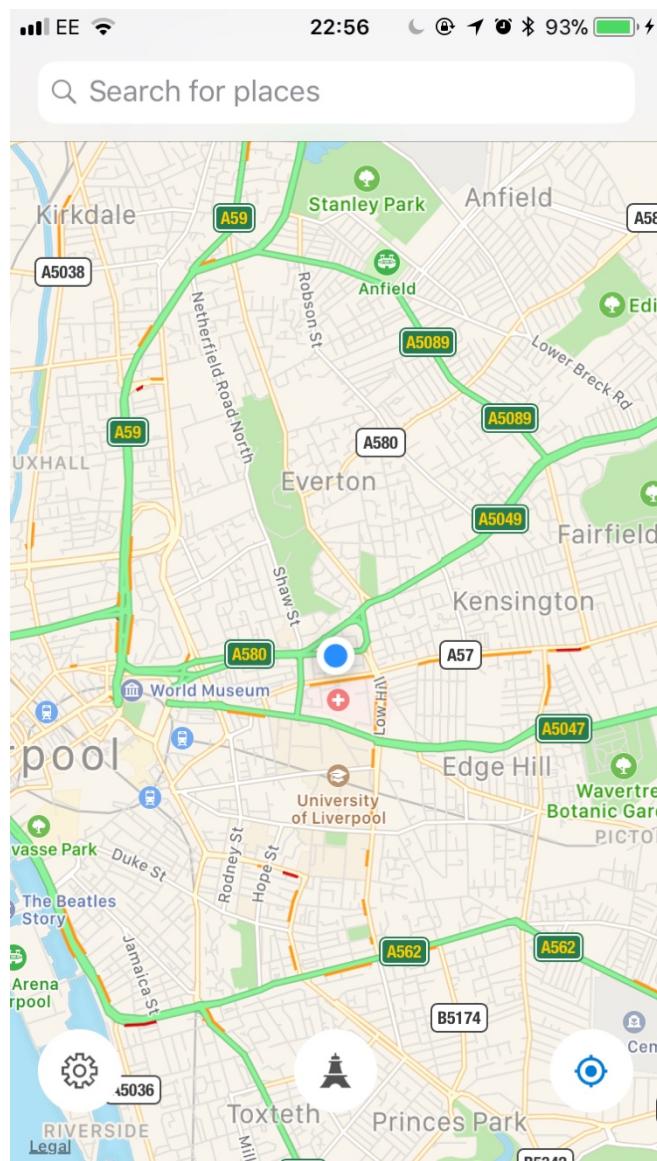


Figure 10: Locate Me Button

8. When you are within a certain distance of your target destination (configurable within the Settings menu) a popup notification will be sent to your iPhone telling you that

you need to start to make your way off of the bus. You will then be presented with two options. The first option is to press the “Continue” button in which our application will keep tracking your location so you always know where you are. This is for the scenario where our app notifies user earlier than expected. Or you can press “End” to end tracking altogether whereby you will be asked to provide feedback. If our application is not open on your mobile device then you will receive a push notification on your home screen telling you when to get off the bus.

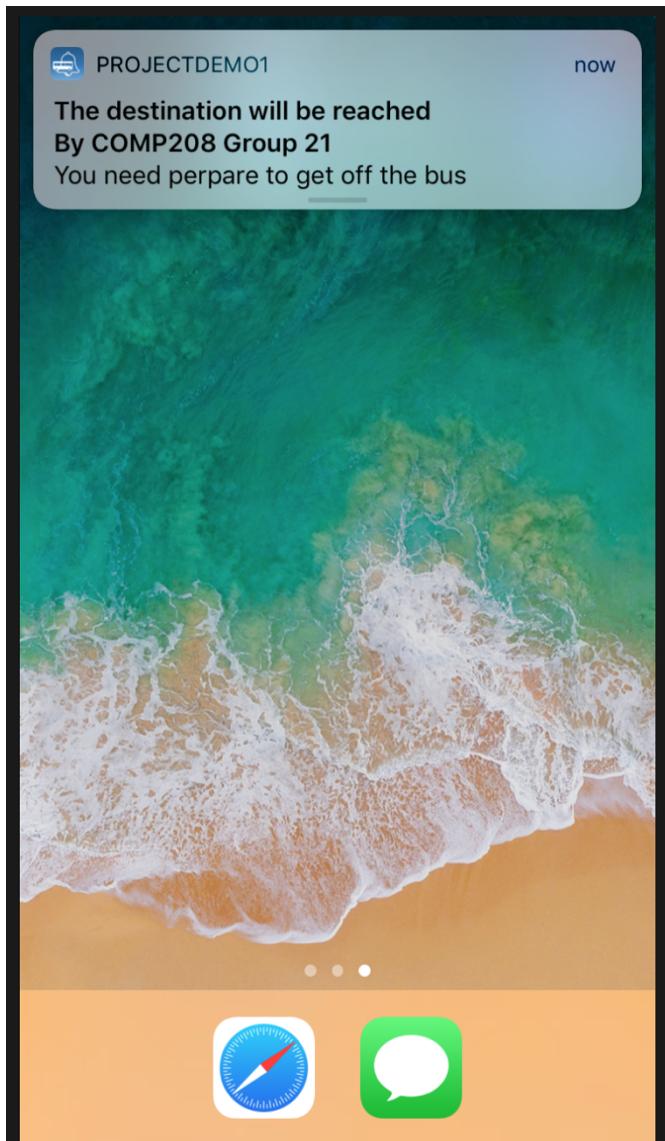


Figure 11: Push Notification

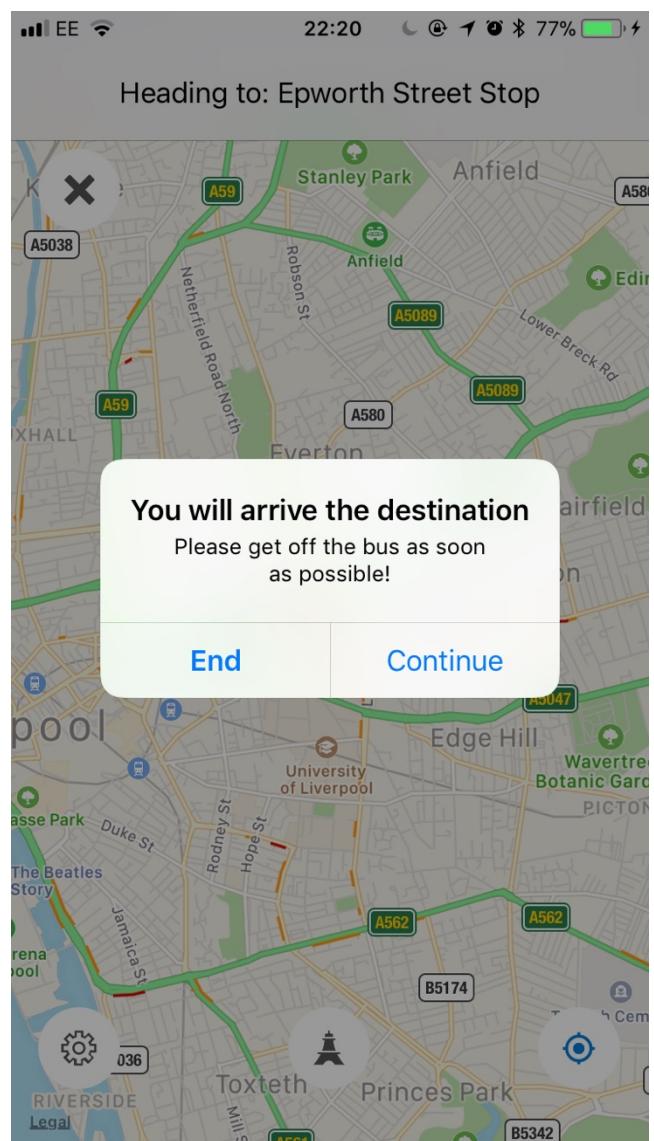


Figure 12: In-app pop-up Notification

9. If you happen to missed the bus stop, we will send you a notification telling you that you have probably went beyond your destination. This case happens only when the user fails to respond to our arrival notification. This notification is designed to be sent when the user is away from the bus stops 100 meters after arrival notification, aiming to minimize the effect of missing bus stops.

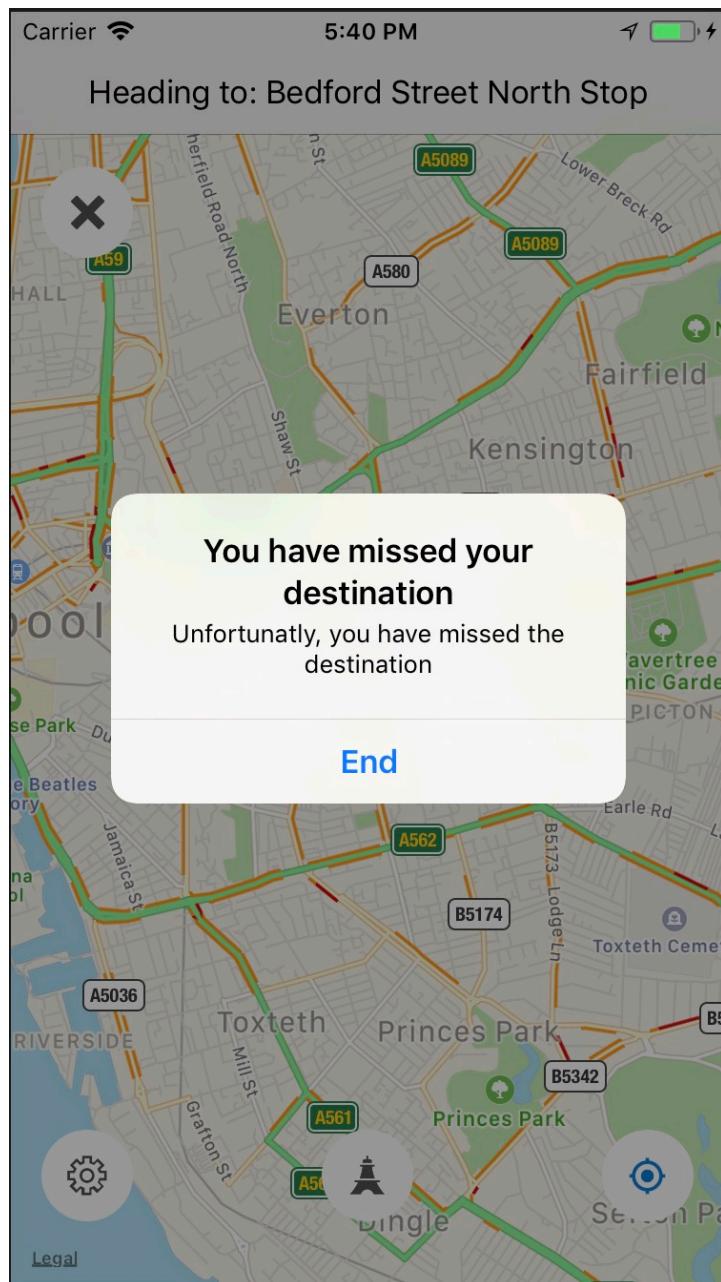


Figure 13: Miss stop Alert

10. If you need to make any changes to our application then you will want to access the Settings menu. This can be done by pressing the Settings icon on the Main screen. From this menu you will be able to change the distance from your target bus stop in which you receive a notification. You will also be able to switch to a low-power mode (implemented by slowing the updating frequency of user locations) as well as if you would like to enable a vibration when a notification comes in. You will also be able to view simple electronic instructions as well as our privacy policy.

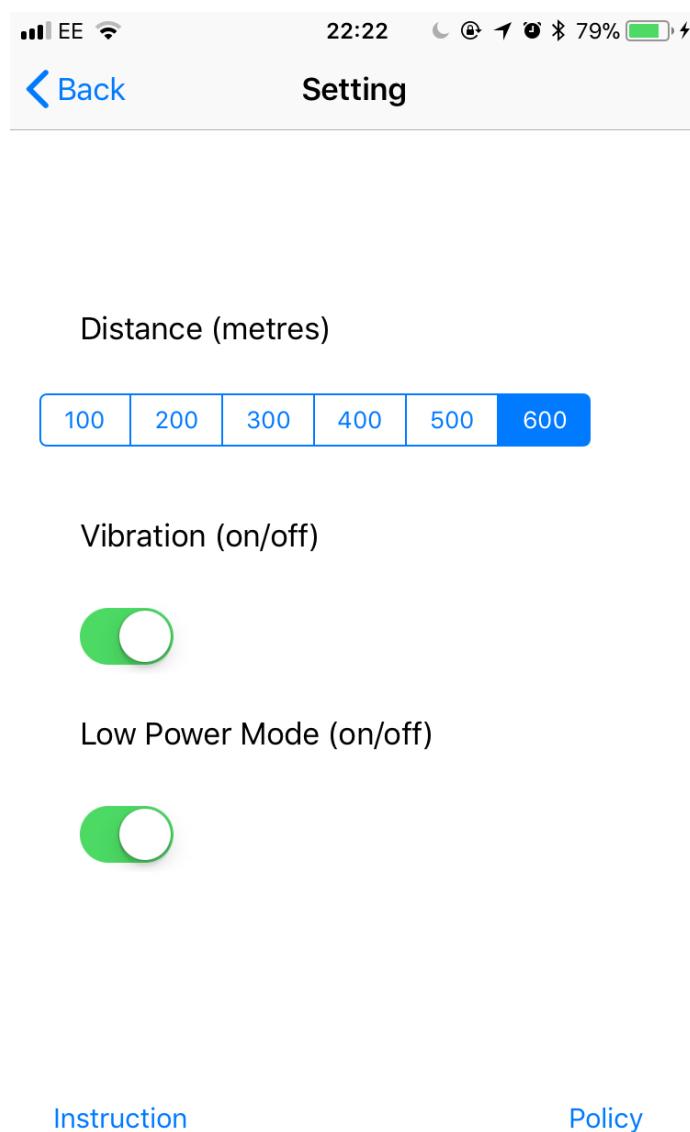


Figure 14: Setting View

11. If you wish to feedback for our application then you may do so by selecting a star rating using our feedback screen as shown below. If you do not wish to leave feedback, simply press “Not Now”.

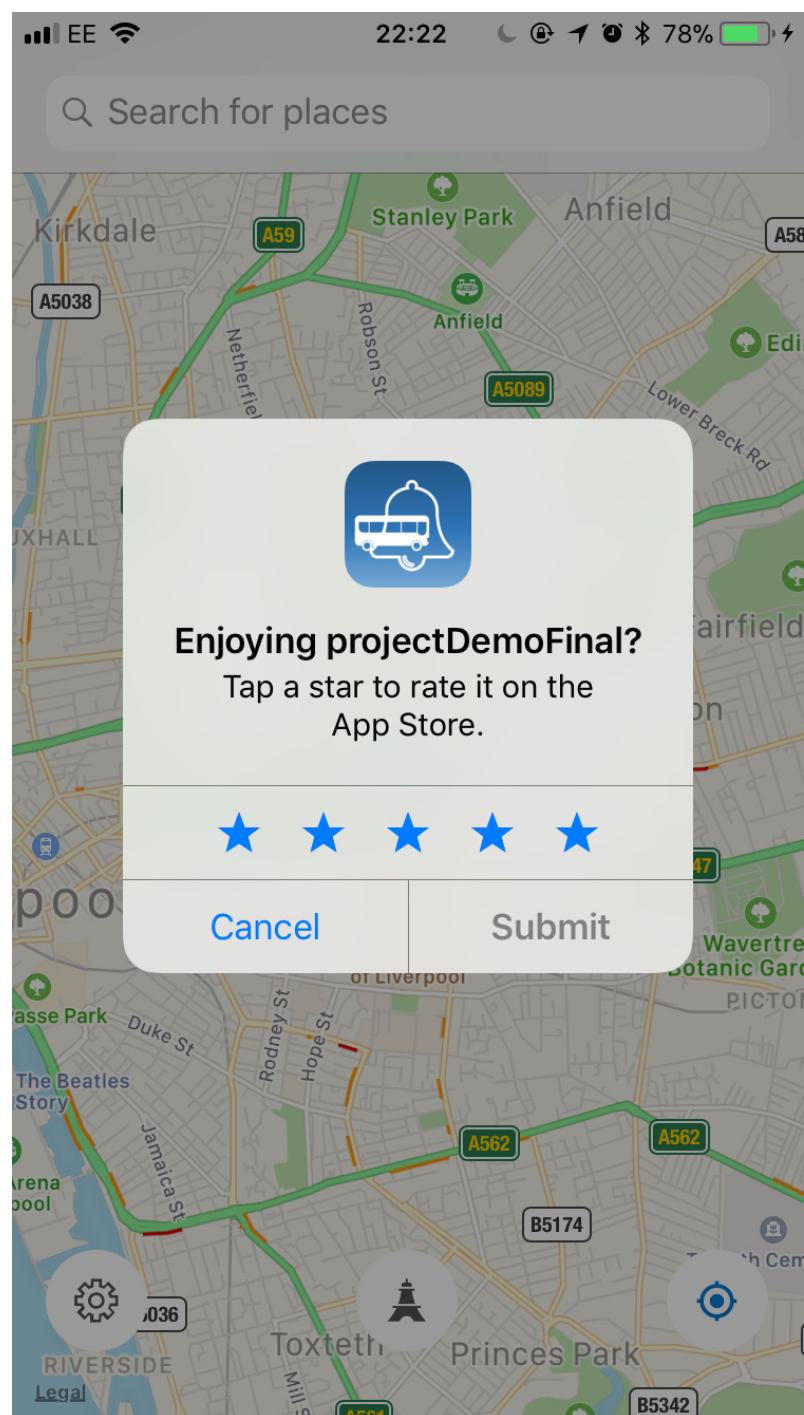


Figure 15: Feedback View