

# CIS 422 Project 2

## User Documentation

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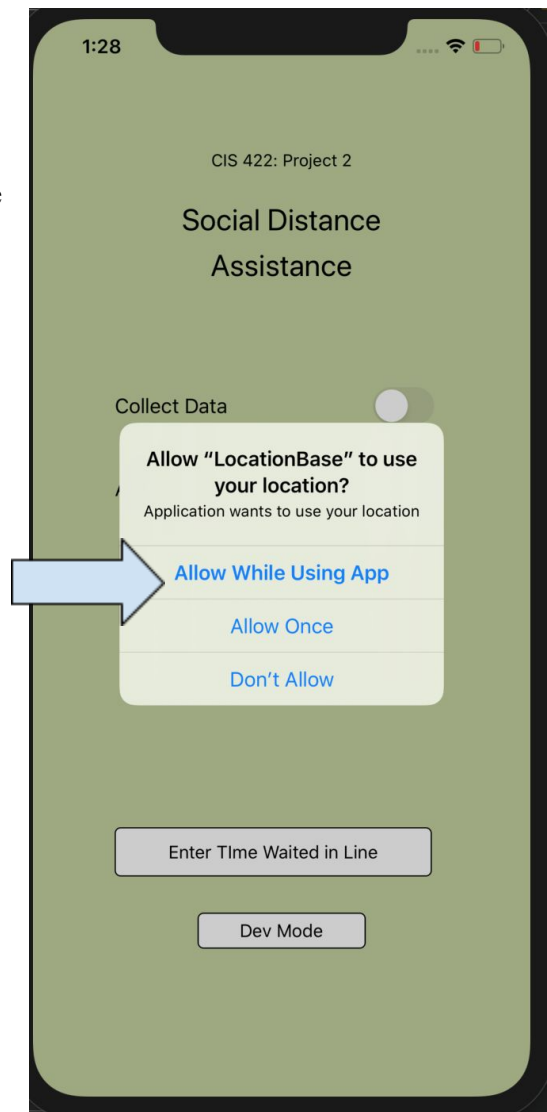
This app allows the user to track their location and upload time spent in line at businesses and restaurants. The user can then view average line time and number of people at a certain business through the web page.

The User can:

- Start and stop location tracking
- Enable/Disable home location obfuscation.
- Enter Line time data
- Enter developer mode to send test packets and change packet frequency
- View business popularity and line time data

### Task 1: Enable Location Services:

In order to use the app, you must first enable location services for this app on their phone. When the app is launched, a notification will pop up, asking to use your location. In order to use the app as intended, you must select "Allow while using App" to proceed with data collection.

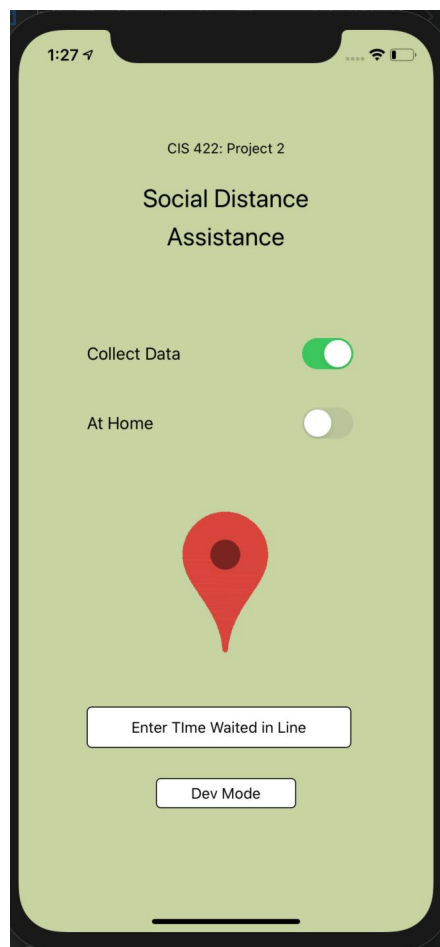
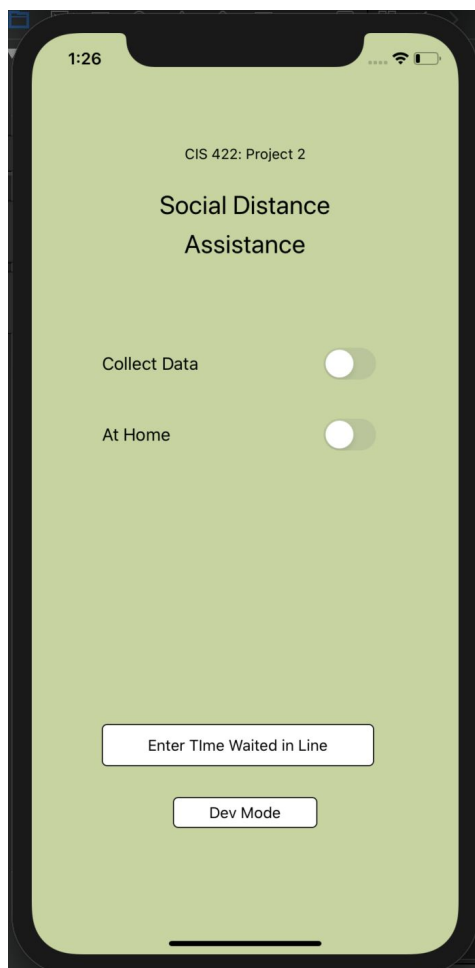


## Task 2: Start/Stop Location Tracking:

In order to start tracking your location you must hit the start button. Once this button is tapped, the button will be grayed out, and a spinning wheel will come up, representing your location being gathered. To stop location tracking, hit the 'Stop button', and your location will stop being tracked. This will be confirmed by the spinning wheel disappearing.

*Home page before collection:*

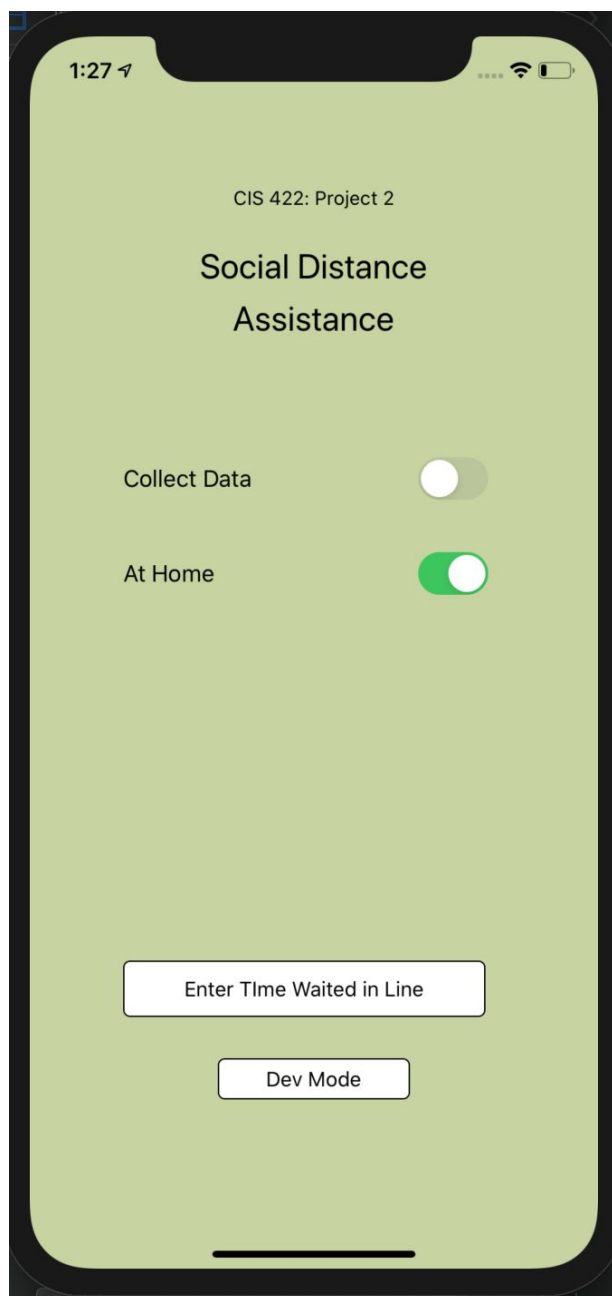
*Home page after data collection is toggled on.*



### Task 3: Start/Stop Home Location Obfuscation:

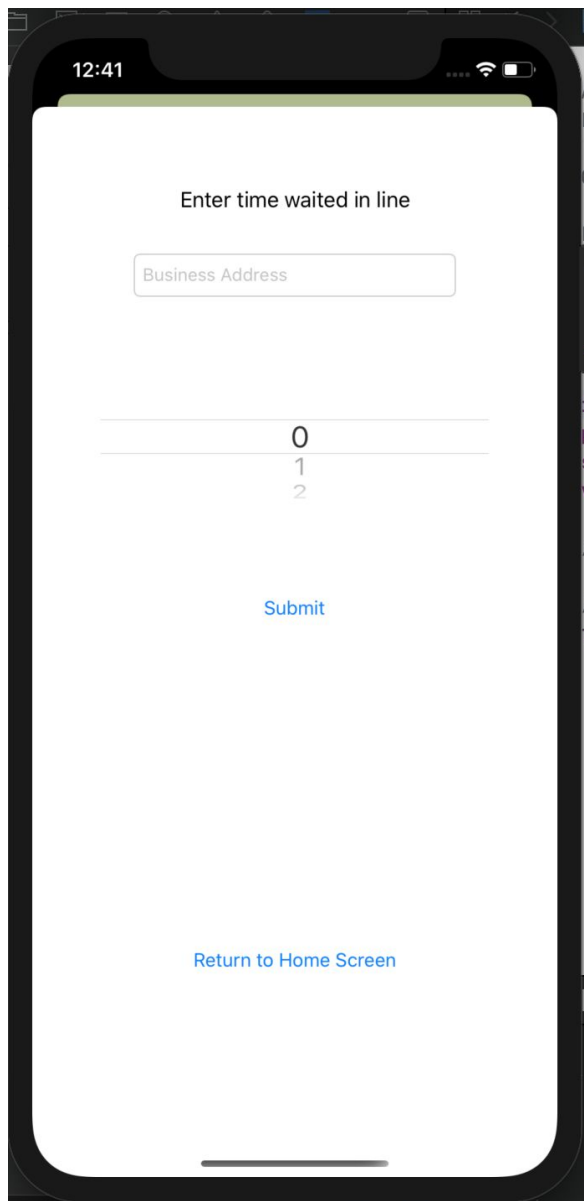
If you are at home and do not want your personal home location data being tracked, you can toggle the 'At Home' switch. This will offset your location by a quarter mile, so you do not need to worry about your private information being revealed. Once you activate this switch, your home location will be obfuscated. If you leave your home, you can resume accurate data collection by toggling the 'at Home' switch back to the off position. This will stop offsetting your data and it will accurately represent your location again.

*The Home screen after 'At Home' is toggled:*



#### Task 4: Entering Line-time data:

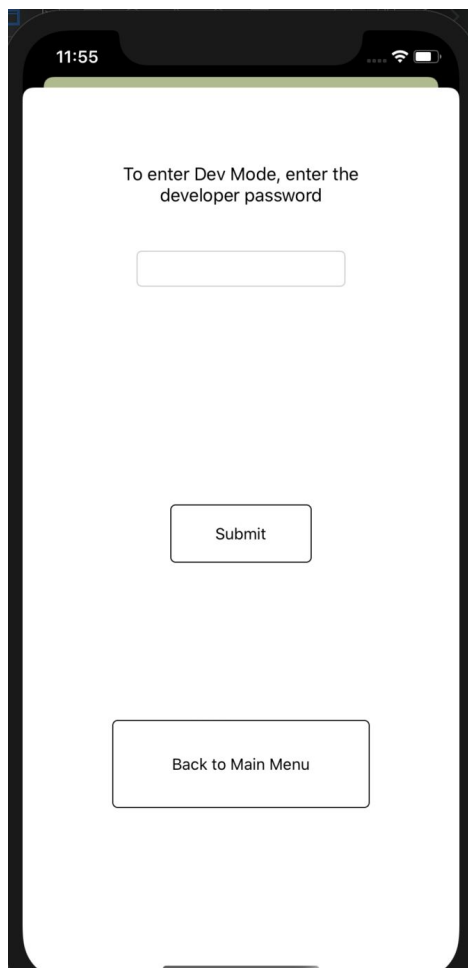
Once you have gone to a store and would like to upload the time you spent in line there, tap the line time data button. This will open up a form where you can enter both the address of the business, as well as the amount of time you spent waiting in line. Once this is complete, hit the submit button, which, on success, will bring you back to the main menu. **Note: Business must already be added to the business database**

A screenshot of a mobile application interface. At the top, the status bar shows the time 12:41, signal strength, and battery level. The app's header is dark green. Below the header, a white card contains the title "Enter time waited in line". Under the title is a text input field with the placeholder "Business Address". Below the input field is a numeric keypad with digits 0, 1, and 2 visible. At the bottom of the card is a blue "Submit" button. Below the card, there is a blue link that says "Return to Home Screen". The bottom of the screen shows the iOS home indicator bar.

### Task 5: Enabling Developer Mode:

If you are a developer and would like to send test data or change the frequency that data is sent, you can enter developer mode. From the home page tab the dev mode button. This will bring you to a page with a text field where you must enter the developer password. The default password for this page is 'password'. Once you have submitted the developer password, you can unlock dev mode. This mode allows you to send test packets. You can set your latitude and longitude manually via the input fields and press the submit button to send the packet. Additionally you can change the frequency of which the app posts location data to the database (default is 5 min).

#### *The developer login screen:*



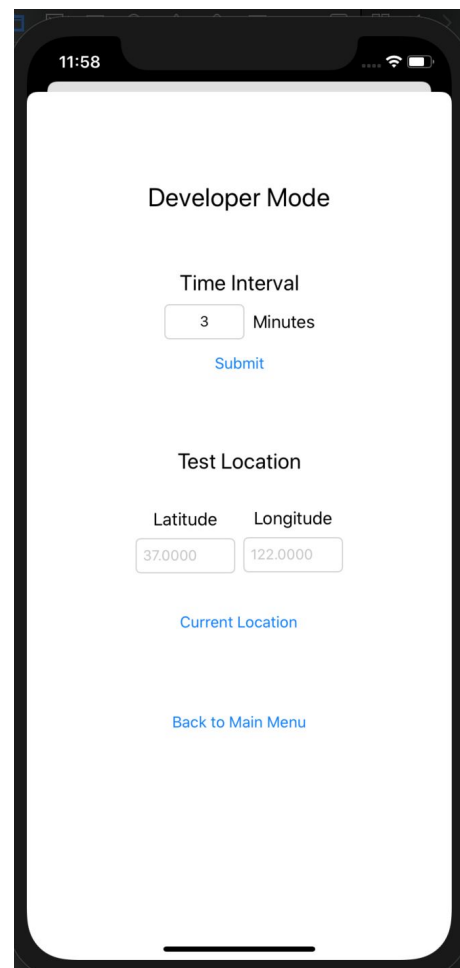
11:55

To enter Dev Mode, enter the developer password

Submit

Back to Main Menu

#### *Developer mode:*



11:58

### Developer Mode

Time Interval

3 Minutes

Submit

Test Location

Latitude Longitude

37.0000 122.0000

Current Location

Back to Main Menu

**Task 6: View amount of users/line time at a business:**

To view data, navigate to <https://ix.cs.uoregon.edu/~masonj/422Project2.html> (or your local 422Project2.html URL) and click on a business to view data about it.

