Unit Tests

Slug Park
Brain Swans
11/30/15

Peter Kotik - Database Module

Tested different return values from the Firebase server. Any integer values will show up as spots taken on the app. A null returned value results in an error message that says that the database returned an invalid value. Tested what happens if the entire database is offline. In which case, an error value will be returned also. Any non integer value returned from the server results in the same message. In theory the values of # of spots can be as large as an integer is allowed.

Danielle Positeri - Database Module

The database increments and decrements from our counter Android app, and the database updates almost instantly. When incrementing and decrementing multiple times in succession with multiple devices, none of the values seem to get lost. Regardless this should not be a problem with app in practice, because each parking lot will have at most several sensors that increment and decrement when cars drive by them, and not in rapid succession as I tested. Firebase handles multiple server pushes very smoothly and accurately.

Curtis Liew - Firmware Module

The application was tested on several different devices running different versions of Android. The two main pieces of hardware used for testing were the 2012 Nexus 7 Tablet and the 2014 Motorola Nexus 6. The tablet runs Android 4.4 KitKat, while the Nexus 6 Phone runs Android 5.1 Marshmallow. The specifications listed for our application allows the it to run on any device running Android Jellybean 4.1 and later. Another device, an older generation Samsung Galaxy Phone, running Android 4.2 Jellybean was used to test the application. Everything worked as expected. The application was not affected by the different versions of Android running on the test devices, and hardware differences did not cripple the app's functionality.

Aman Mangalore- Graphics Module

The application needs to run smoothly and suite all screen sizes available; to test this, multiple devices were used to make sure that the application interface can adapt to any device screen real-estate. The devices used includes a 7 inch Nexus 7 tablet, a 6 inch Nexus 6 Phone, a 4.8 inch Samsung Galaxy S5, and a 4.7 inch HTC One M8 Phone. The application was able to scale to all of the devices used for the test. There are simply too many different devices with different screen sizes out there, but I believe that the devices included in our tests cover a good selection of the most popular device size on the market.

Shrey - UI Module

For the UI Module, I worked on making sure the app was sustainable and did not toggle back and forth from the value obtained from the database and 0. I was also testing the animation of the app, making sure it worked and looked good. In the beginning when we first started to implement the new screen for our front page, and a progress bar, the bar would toggle back and forth and the picture wouldn't take up the whole screen, and so fixing that sometimes led to other unknown bugs. After fixing all of them, I set out to make sure the app was responsive and worked. I repeatedly testing clicking on each parking lot and going back to the previous page, and by going back and forth the two activities, I was testing to make sure the numbers stayed constant, and updated as needed. This made sure there were no bugs in the UI of the app, making sure the code was running as expected, and the app displayed the information needed.

Ramin - UI Module

Tested all visual UI elements to make sure no bugs were present. I worked on getting the progress bars to not be laggy when frames drop, and when the values are updated from the server. Animations would jump forward when values change. Animations would also not stop, even if the values remain the same. Every refresh the animations would repeat so I had to not run animations if values remained unchanged. I tested rapid value changes and large value changes, along with constant activity switches to make sure animations did what they were supposed to.