**Com S 454 Term Project: ISU Park Share**

GitHub Repository: <https://github.com/balex654/ISUParkShare.git>

**Overview**

ISU Park Share is an iOS app that allows users to rent out their driveway to other users for parking spaces during ISU football games. This app communicates with a Google Cloud Platform (GCP) App Engine server instance via HTTP requests. The App Engine is connected to a GCP SQL database instance that is used for storing application data. The database also features encryption of user passwords. I developed and deployed the backend application that runs on the App Engine using Java Springboot. For the frontend iOS app, I used XCode and Swift for development and then submitted the app to Apple’s TestFlight platform, which is used to test apps before submitting them to the App Store.

To download and use the app, go the link in this report with an iOS device. If you don’t already have the TestFlight app installed, download it from the App Store before doing this. After going to the link, the app should appear in the TestFlight app where it will be available for download. I’ve also included a link at the top to the GitHub repository that I’ve been pushing the project source code to.

**Adding Parking Areas**

After creating an account or logging in, you will be brought to a view with tabs on the bottom. After selecting the far right “Profile” tab and then tapping the “My Parking Areas” button, a list will appear. To add a parking area to your profile, tap the “Add Parking Area” button and enter the required information, be sure to enter a real address, then tap “Add”.

**Listing a Parking Area**

After adding a parking area to your profile, you will be able to list the parking area for other users to rent spots from. Go to the “Listed Parking Areas” tab and tap the “List a parking area” button. A List will appear on the top half of the screen with all the parking areas that you added to your account. Select one of the areas and then configure the start date and end date for when the parking area will be available for other users to rent. After tapping the “Submit” button, you will see that the parking area has appeared in the “Areas That You’ve Listed” list.

**Adding a Vehicle**

To add a vehicle to your profile, go to the “Profile” tab and tap the “My Vehicles” button, a list will appear. To add a vehicle, tap the “Add Vehicle” button and enter the required information. After tapping “Add” from here, you will see that your vehicle has been added to your profile.

**Renting an Area**

If you are still in the same account that you used to make the parking area, you must either log in to another account or create a new account to rent the parking area that you listed previously. After you’ve done that, go to the “All Parking Area” tab and select the parking area that you previously listed from the other account. You will then see details of the parking area. Tap “Rent Spot(s)” and then choose the vehicle you would like to occupy the spots in the area and tap “Rent”. In the “Rented Areas” tab, you will be able to see the areas that you are currently renting and details of each one. From the account that created the area, you will be able to see who rented the spots in your parking area from the “Listed Parking Area” tab.