Find Parking App

The “Find Parking App” provides a convenience and efficient way to find the parking spot the users desire the most. We are calculating location, latest update time, area parking traffic and spot space to give users the best experience of finding a parking spot. We are focusing on the spots that are free or could be paid by meters for now.

Model

The model should provide a Spot, a road, and a credential.

* Spot is used to keep the parking spot’s information. Spot consists of a location, the spot most update availability, the picture of the spot, the traffic around the spot.
* Road is used to represent the parking availability of an area (a road or a section of road). Road consists of a location, a list of spots.
* Credential is used to represent a user’s information. Credential consists of a username, phone number, car model, credit, rating

The model provides the following functionality:

* Report a list of spots sort by both location and availability with time.
* Report a list of roads sort by both location and availability with time.
* Report the credit of a user.
* Report the spots availability in the radius of the user or in the radius of the address they search.
* Reserve the credit by 1 when they click “Detail”
* Give back the credit after the user click both “park” when they park and “leave” button when they leave.
* Add the number of credits by purchasing.
* Track the users’ location when they click “park” (Give notification)
* Track the users’ location when they click “leave” (Give notification)
* Create credential with username, phone number and car model

View

The thing users can see and control on the app.

* search bar for the parking address
* find nearby parking button
* list of roads under list view
* list of roads under map view
* Sorting options (Closed, number of availability)
* Navigation button which can transfer the app to google map or apple map, etc.
* Refresh the road list.
* Click “park” button.
* Click “leave” button.