**Register**

Input fields for personal details

Encrypt the personal details

Send to the API

Get response from the API

If not successful then display message & stay on screen / highlight relevant areas

If successful then the user is ‘logged in’

**Login**

Take users email address & password

Encrypt the details

Send to the API

Get response

If not successful then display message & stay on screen / highlight relevant areas

If successful then the user is ‘logged in’

The Register / Login Screen will be the same initial screen the user sees. A fluid transition between the options would be ideal (tresorit application).

**Logged In**

Cache some necessary details

* Car Registration
* Unique ID
* Current Balance (used to estimate length of time they can park for)
* Cache other car park locations?

Allows the user to the rest of the system

**Find a car Park (Before parked)**

Obtain the users current location (via GPS)

Display a list of nearby carparks including distance

Display a map with the users current location, and car park locations

Let the user search for car parks by location / destination

Provide directions to location – open up external mapping services

**Determine current car park location (when parked)**

Use WiFi in the phone to analyse the WiFi signal strength and pinpoint the location of the user

* If there are multiple WiFi signals it will be necessary to determine which is the correct one by taking into account the strongest signal

Option to enter a ‘Location ID’ as a backup method

**Park**

Option on how they want to pay

* A) Pay for x amount of hours
* B) Start timer and stop when finished parking

1. User selects an amount of time the want to park for

User presses ‘Park’

Sends message to the API confirming the time paring started (time obtained from the server). Also confirm the length of time they are parked for

Display a confirmation message to the user & display they time they are parked until

1. Users presses ‘Park’

Sends message to the API confirming the time paring started (time obtained from the server).

Display message to user confirming they are parked.

Display a message with an estimated ‘parking end time’ based on available funds

If notifications are enabled, display a notification to the user when they have x amount of time remaining / parking has expired (This happens for both A & B)

**Add funds to account**

Opens up an ‘iFrame’ which points to our section of the website handling payments

OR

Links directly to PayPal / other payment provider