

Project Design P3
Advanced Topics in Computer Science (COMP590)

submitted by

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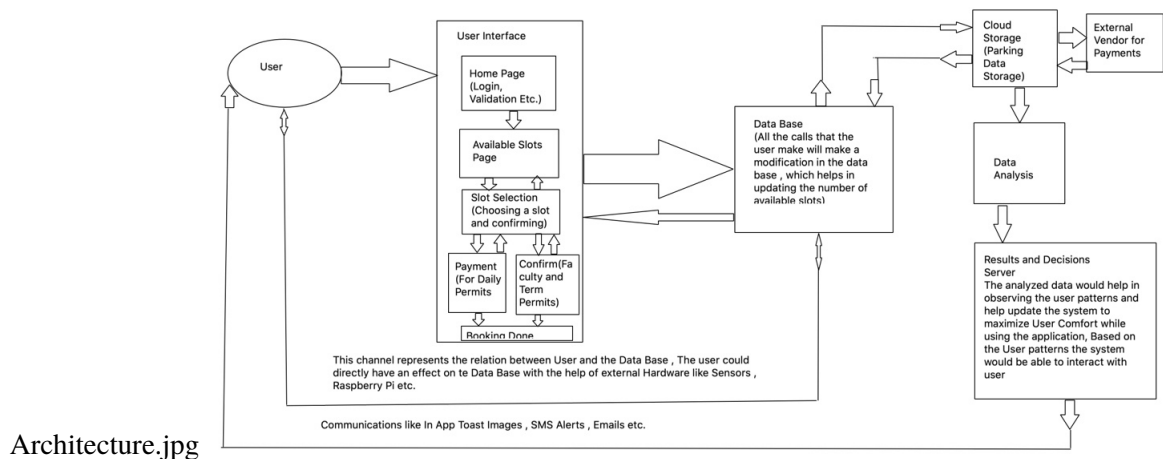
1 System Architecture Design :

We developed our system design architecture in such a way that user should have the best possible user experience, i.e; It is User-Centric, while going through the app.

The user interacts mainly with the User Interface but there will be a lot of background processes running which are aimed at making the whole process of booking a slot more easy and in a way that saves time. In the background , we have two databases , One a small local database which is only concerned about the number of available slots at that particular instant of time. Some actions of users make changes to that database, Like actually parking the vehicle such that the hardware present, i.e; Sensors , Raspberry Pi, can send the data to this database.

The Cache like database is connected to a cloud storage from where all the data analytics is done and the results sent to the server , The server will be programmed in such a way that it will send notifications to the users based on the Data Analytics.

The Design being :

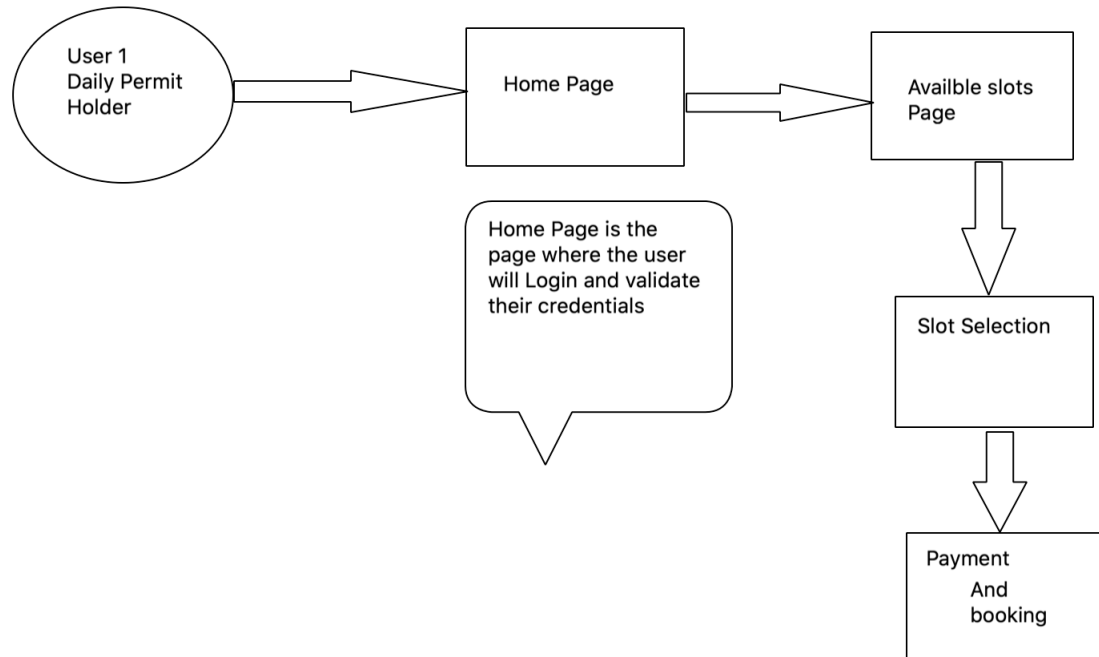


2 Use Cases :

There are multiple use cases which we can take into consideration. We are for now going through the three most fundamental use cases of our app.

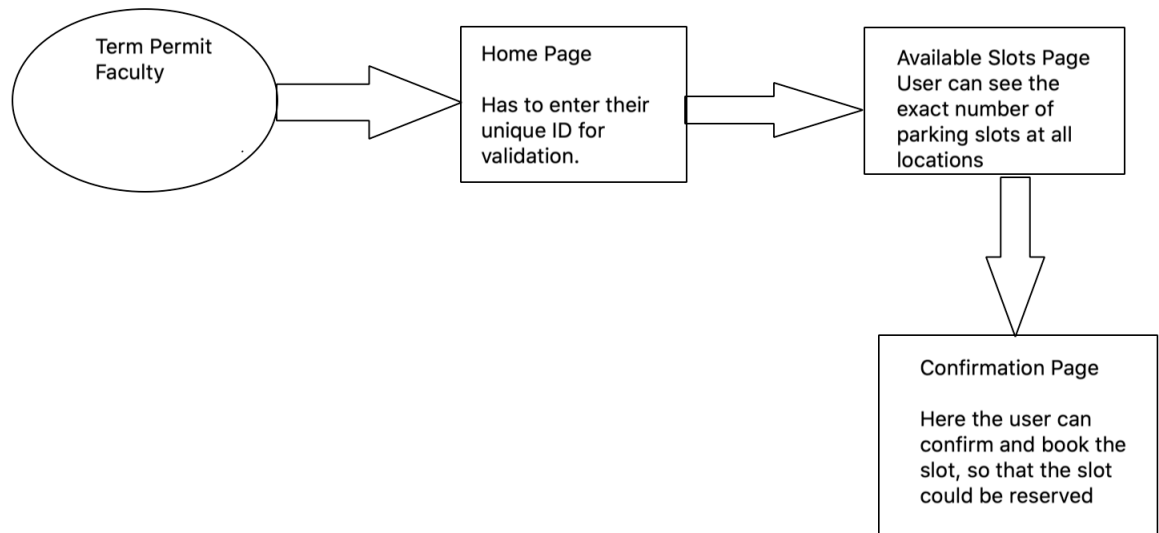
Use Case 1:

This Use Case is focused on the daily permit user.



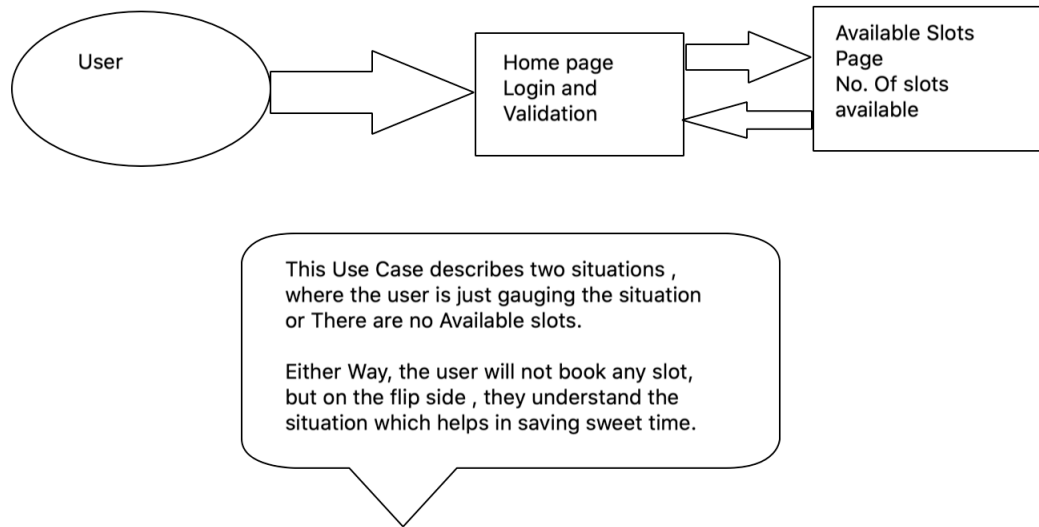
Use Case 2:

This Use Case is focused on the term permit and faculty user.



Use Case 3:

This Use case is based on the possibility that there might be no slots available or the user might just want to gauge the situation.

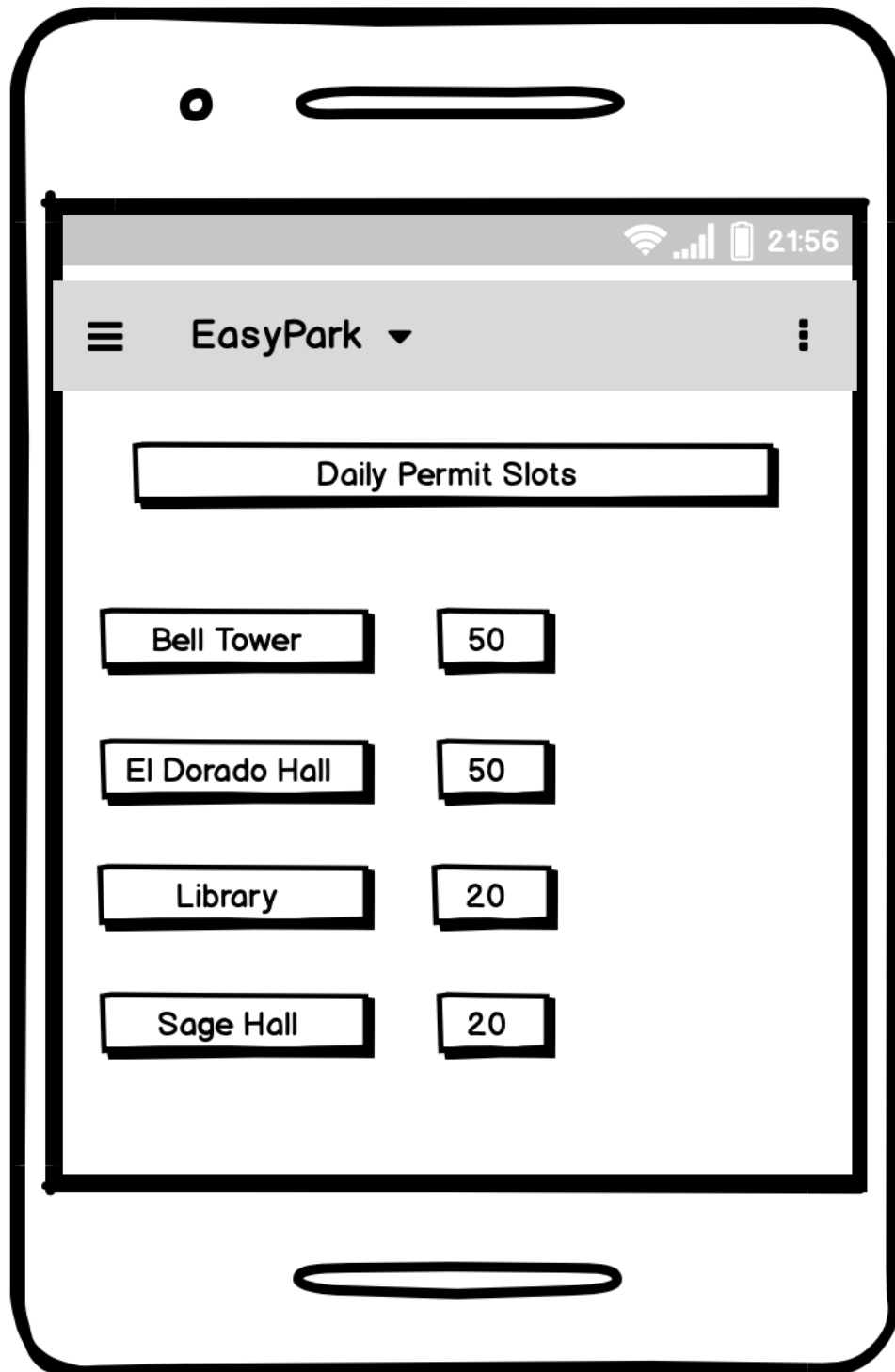


3 Mock Ups:

For the mock ups , we have gone through three important potential screens in the mobile app.

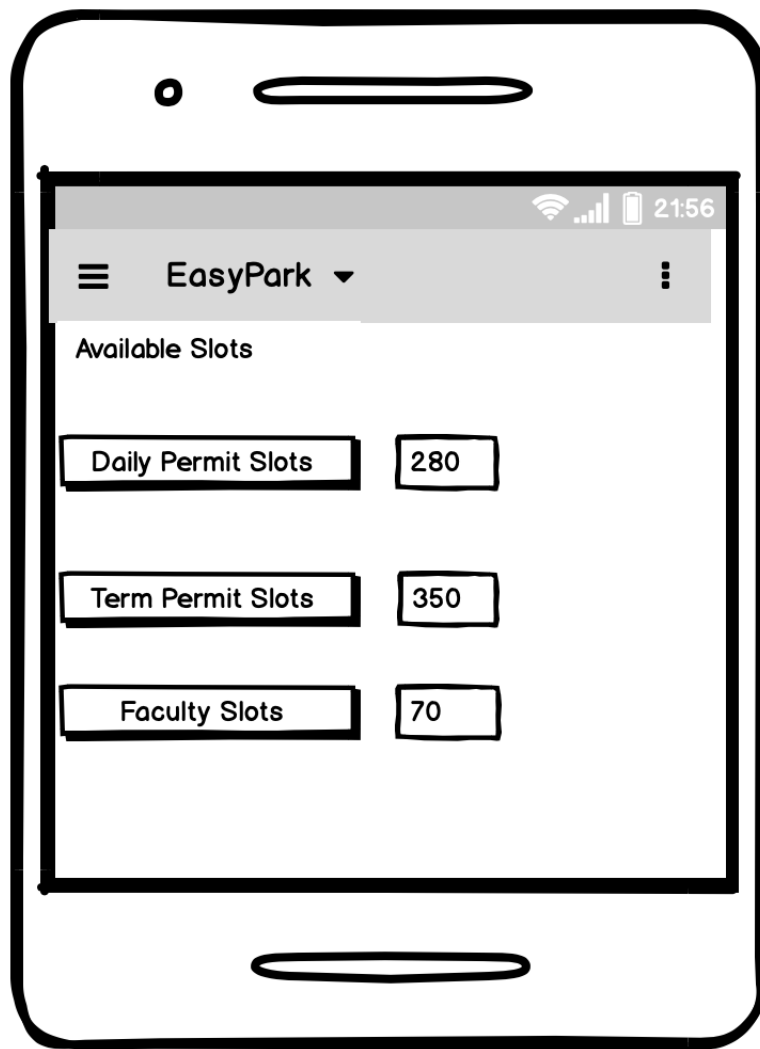
Mockup 1:

This particular mock up will demonstrate the number of parking slots for each location for a category.



Mockup 2 :

This mock up will demonstrate the number of parking slots available for each category



Mockup 3 :

This mock up will demonstrate the payment to be done for the daily permit users.

