



**UTM**  
UNIVERSITI TEKNOLOGI MALAYSIA

SCSJ 3553 ARTIFICIAL INTELLIGENCE

PROJECT TITLE :  
SMART PARKING (SMART CITY)

LECTURER :  
DR AIDA BINTI ALI

GROUP NAME :  
POTATO

GROUP MEMBERS :

1. BELLARINA CHEW LI YEN
2. NIK ADAM DANISH BIN NIK JOHARRIS
3. NURUL HUDA BINTI AB AZIZ
4. NURUL IZWANI BINTI JAIDI
5. SITI ARINA BINTI MD LATEH

SUBMISSION DATE : 15/12/2019

## Proof of Concept

### Sign in/ Sign up and user Profile

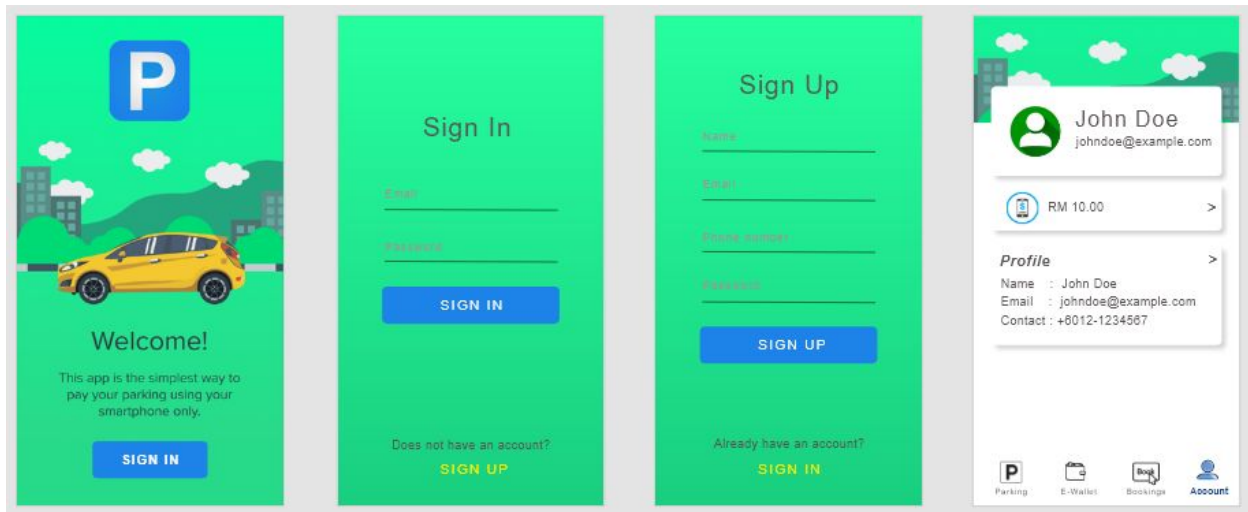


Diagram 1

Diagram 2

Diagram 3

Diagram 4

This first image would be the first interface for the application. When the user click on “SIGN IN”,the user will be to the next interface which they have to sign into their account by filling up the email and their password.

If they do not have any account yet, they have to click “SIGN UP” to register for the account. They have to fill up all the details that the systems ask which are the name of the user, the email, phone number and the password.

After finished register the account, the user have to back to the sign in page and fill up the email and password that they have already done during the registration.

After completing the sign up and sign into the account, the user would be able to view their own account and profile details.

Search free parking space and locate the chosen parking space

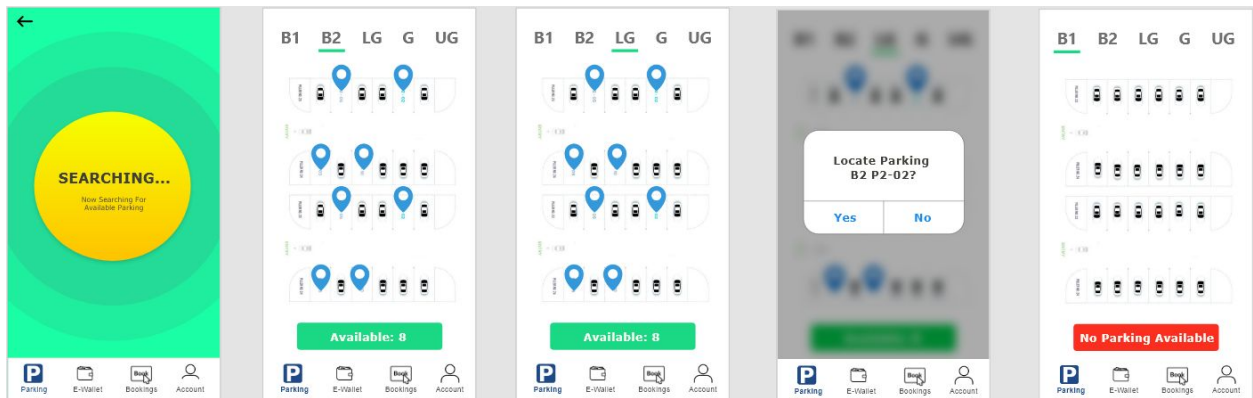


Diagram 7

Diagram 8

Diagram 9

Diagram 10

Diagram 11

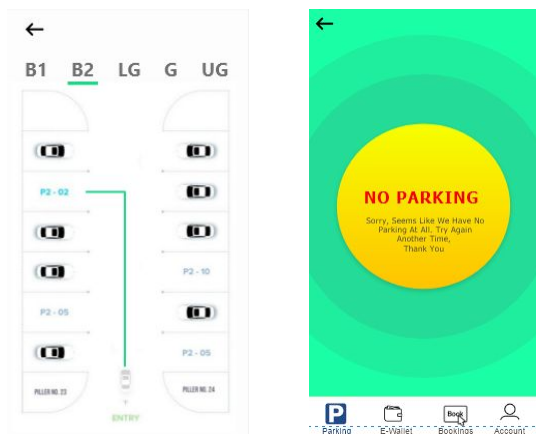
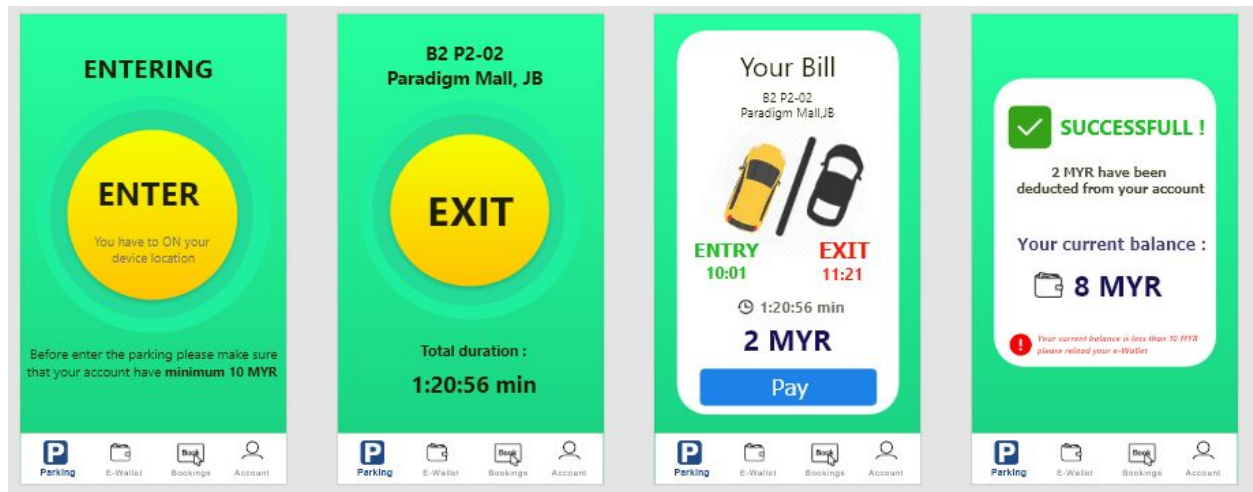


Diagram 12

Diagram 13

When the user clicks on the “Parking” icon, the system will first search for any available parking as demonstrated in Diagram 6. After that the system will display the available parking spaces at the floor the user is currently on (Diagram 8). The user also has the choice to view the parking spaces on other floors (Diagram 9). If there are no parking spaces on the floor the user chooses, the system will display “No Parking Available” (Diagram 11). Once the user has chosen a parking space, they click on the blue location icon. When the user clicks on “Yes” to the “Locate Parking” confirmation message (Diagram 10), the system will guide the user to the desired parking via GPS (Diagram 12). If there is no parking whatsoever on all floors, the system will display “No Parking” (Diagram 13).

Calculate total hours car parked



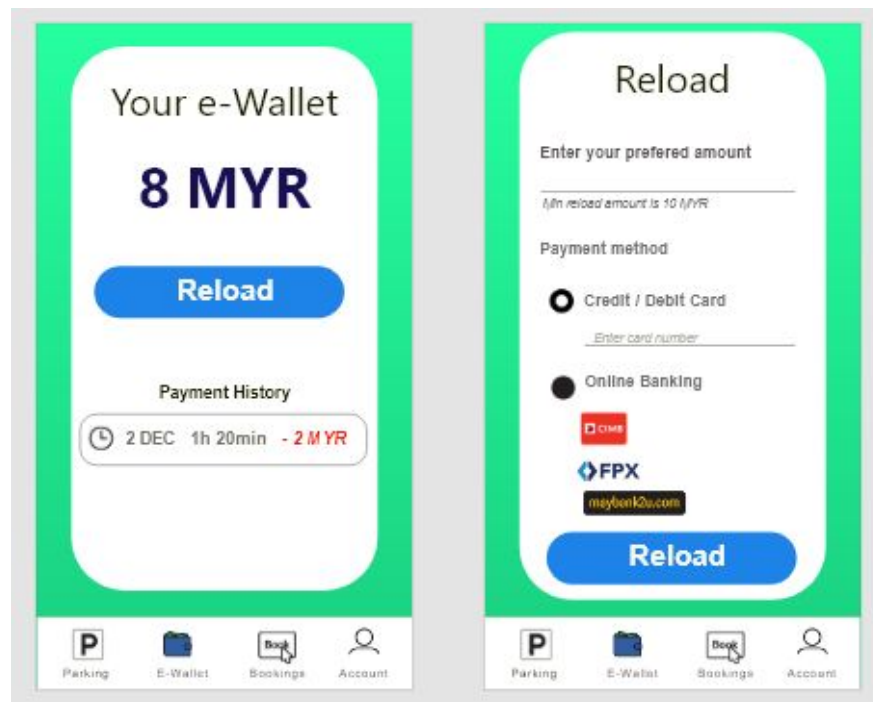
Once the user park the car into the parking space, they have to click “ENTER” for the system start calculate the duration they used the parking space.

Right after they finish used the parking space, they have to click another button which is “EXIT” to stop the timer from calculate the duration.

After that, the next interface shows the details about the entry and exit of the car as well as the total duration used and total amount that they have to pay.

The user has to pay through e-Wallet by clicking the button “Pay”, the money that they have to pay will be automatically deducted and shows the current balance in their account.

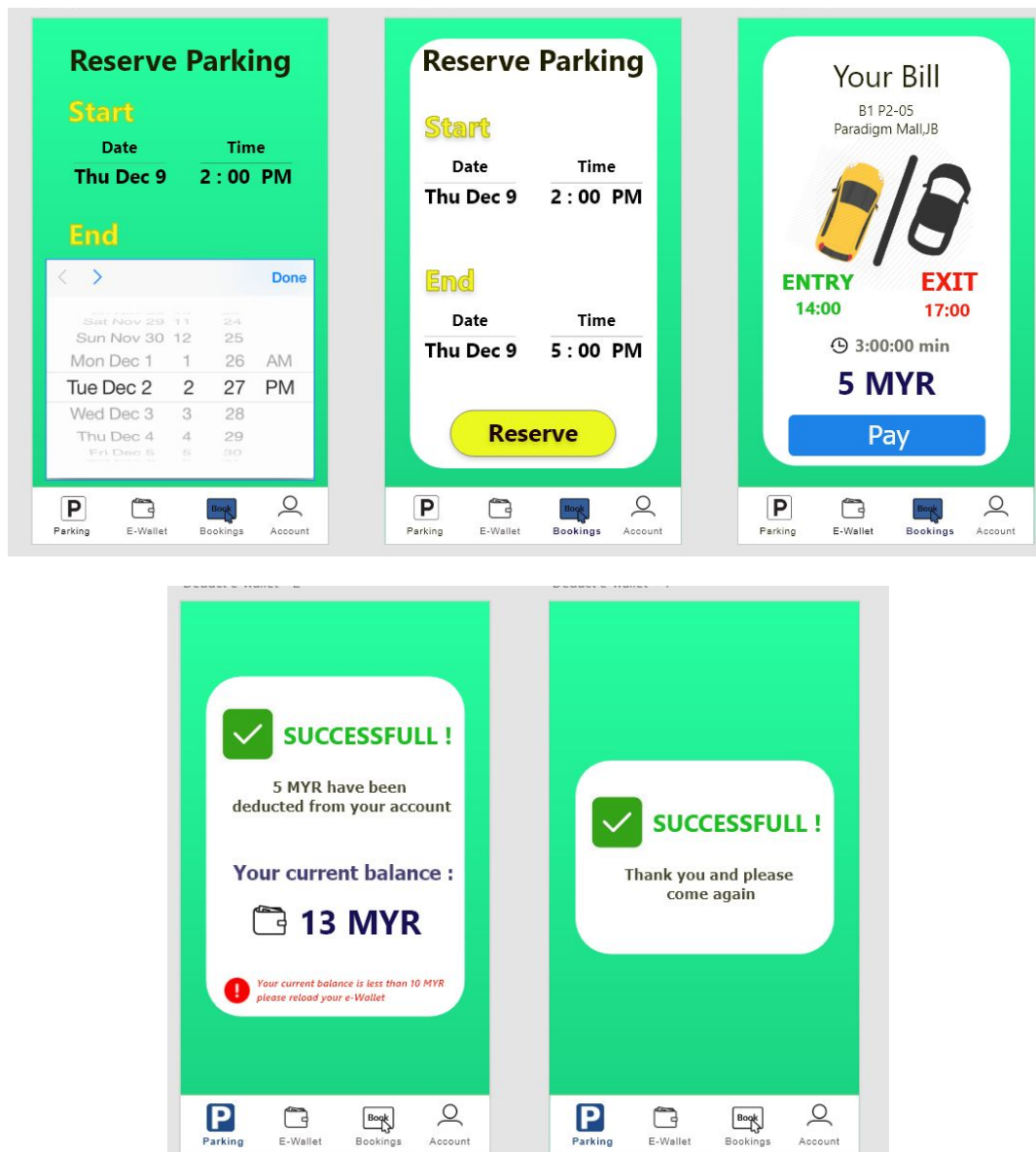
Check e-Wallet balance and reload the e-Wallet



For menu e-Wallet, it shows the current money in our account. It also has a payment history that save all the transactions that the user did before. Each transaction, it will display the date when the user used the parking space, the total duration of the user used the space and the total amount that had been deducted.

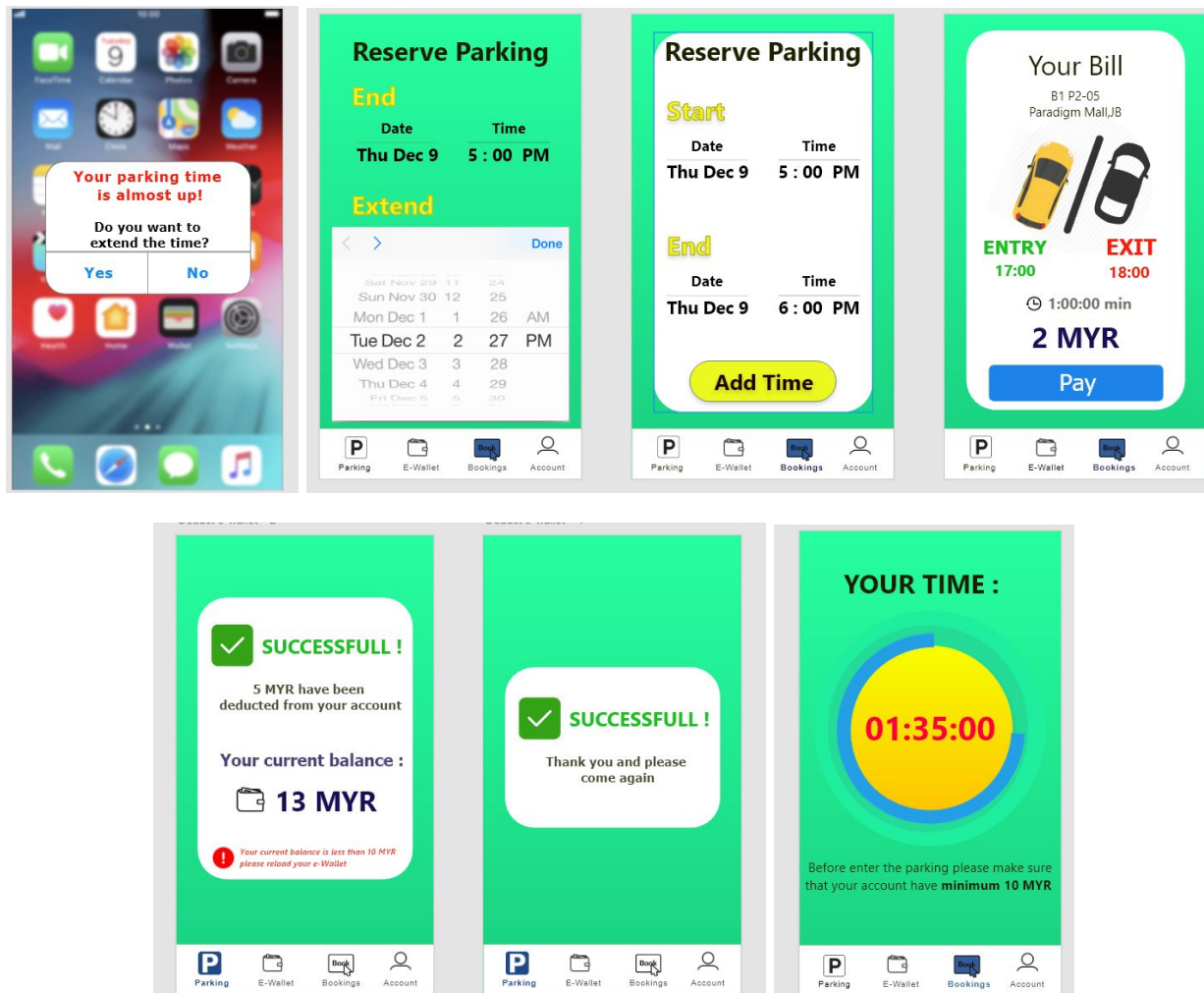
In this menu, the user also able to make a reload for their account. There are two ways on how to reload which are by credit/debit or online banking such as CIMB, Maybank2u or FPX. Before choosing the method, the user has to enter their preferred amount that they want to reload.

Reserve a parking space in advance



Based on Diagram 8 & Diagram 9 above for searching free parking spaces, button reserve parking is being used by clicking the blue icon that shows available spaces that will link for booking. First thing that users need to do is choosing the starting time and expected end time for the reservation. After they had booked, they will be directed to payment part which it will be deducted from e-wallet and the system will display the time remaining for them.

User extend the parking duration



When the time is almost finished, the system will notify the users and asked whether they want to extend their time. If they wish to add their time, users need to set a new time starting from the end time from previous booking time. Then, e-wallet will be deducted according to the new payment and the time will be added in the system.

## Peer Review (Assignment 2 - Assignment 4)

1. Group Member 1 : Nurul Izwani binti Jaidi  
Matric Number : A17CS0183

Group Members	Nik Adam Danish bin Nik Joharris	Bellarina Chew Li Yen	Nurul Huda binti Ab Aziz	Siti Arina binti Md Lateh
<b>(Asg 2) Active participation</b>	4	4	4	4
<b>(Asg 3) Team working value</b>	3	3	3	3
<b>Contribution</b>	4	4	4	4
<b>Problem-Solving</b>	4	4	4	4
<b>Attitude</b>	4	4	4	4
<b>Focus on task</b>	4	4	4	4
<b>Working with others</b>	4	4	4	4



2. Group Member 2 : Nik Adam Danish Bin Nik Joharris  
 Matric Number : A17CS0292

Group Members	Nurul Izwani binti Jaidi	Bellarina Chew Li Yen	Nurul Huda binti Ab Aziz	Siti Arina binti Md Lateh
<b>(Asg 2) Active participation</b>	4	4	4	4
<b>(Asg 3) Team working value</b>	3	3	3	3
<b>Contribution</b>	4	4	4	4
<b>Problem-Solving</b>	4	4	4	4
<b>Attitude</b>	4	4	4	4
<b>Focus on task</b>	4	4	4	4
<b>Working with others</b>	4	4	4	4

3. Group Member 3 : Bellarina Chew Li Yen  
 Matric Number : A17CS0026

Group Members	Nik Adam Danish bin Nik Joharris	Nurul Izwani binti Jaidi	Nurul Huda binti Ab Aziz	Siti Arina binti Md Lateh
<b>(Asg 2) Active participation</b>	4	4	4	4
<b>(Asg 3) Team working value</b>	3	3	3	3
<b>Contribution</b>	4	4	4	4
<b>Problem-Solving</b>	4	4	4	4
<b>Attitude</b>	4	4	4	4
<b>Focus on task</b>	4	4	4	4
<b>Working with others</b>	4	4	4	4

4. Group Member 4 : Siti Arina binti Md Lateh  
 Matric Number : A17CS0208

Group Members	Nik Adam Danish bin Nik Joharris	Bellarina Chew Li Yen	Nurul Huda binti Ab Aziz	Nurul Izwani binti Jaidi
<b>(Asg 2) Active participation</b>	4	4	4	4
<b>(Asg 3) Team working value</b>	3	3	3	3
<b>Contribution</b>	4	4	4	4
<b>Problem-Solving</b>	4	4	4	4
<b>Attitude</b>	4	4	4	4
<b>Focus on task</b>	4	4	4	4
<b>Working with others</b>	4	4	4	4

5. Group Member 5 : Nurul Huda binti Ab Aziz  
 Matric Number : A17CS0182

Group Members	Nik Adam Danish bin Nik Joharris	Bellarina Chew Li Yen	Nurul Izwani binti Jaidi	Siti Arina binti Md Lateh
<b>(Asg 2) Active participation</b>	4	4	4	4
<b>(Asg 3) Team working value</b>	3	3	3	3
<b>Contribution</b>	4	4	4	4
<b>Problem-Solving</b>	4	4	4	4
<b>Attitude</b>	4	4	4	4
<b>Focus on task</b>	4	4	4	4
<b>Working with others</b>	4	4	4	4