CCT College Dublin

Assignment Cover Page

Module Title:	Introduction to Human Computer interaction
Module Code:	
Assignment Title:	
Lecturer Name:	Mikhail Timofeev
Student Names:	Chia Hua Lin
Student Nos.:	2020044
Assignment Due Date:	30/10/2020, 11:55 PM

Academic Year: **Year 1** ■ **Year 2** ☐ **Year 3** ☐

DECLARATION

I, the above named student, confirm that by submitting, or causing the attached assignment to be submitted, to CCT, I have not plagiarised any other person's work in this assignment and except where appropriately acknowledged, this assignment is my own work, has been expressed in my own words, and has not previously been submitted for assessment.

The Tasks 1

The Coronavirus has been around for several months. Recently, level 5 Lockdown has performed again. COVID19 pandemic is a serious impact on everyone's lives.

Only a maximum of 17 people is allowed onboard per bus under new Level 5 lockdown rules. It also causes inconvenience to people who need to take the bus every day. Once has been said: There are bus but can not take it.

New Level 5 lockdown rules that let essential workers were scrambling to get into work on time after. They stressful to be refused to onboard buses or buses passed them in the morning. If everyone can view how many seats are available in each bus accounting when they take the bus before to that can reduce wait time.

User requirements list:

1. How many seats available capacity now?
2. How many seats available capacity next bus?
3. What time will arrive the next bus?
4. Which seat is available?
5. How much balance with my Leap Card?

The Tasks 2

➤ The front-end app:

1. Search By Route

Customers can input bus number to search the stop station then to view available capacity.

2. Search By Stop Number

Customers can input stop station number to search the bus available capacity.

3. More Bus Information

Customers can view that display time of next bus and available capacity.

4. Route Listings

That will appears similar bus number.

5. Stop Station

That will appears each stop station and available capacity.

6. Show Seats

Drivers and customers can view which seat is available and how many seats available capacity.

7. Leap Card

By combining a Leap Card (Student Leap Card) with a mobile phone. You can top up on your mobile phone's online. Use your mobile phone to swipe your card without taking out your leap card or cash.

8. Leap Card Wallet

Use mobile phone tap to pay.

9. Top Up Leap Card

That can view transaction and top up.

10. My Tickets
Show tickets to driver.

11. My Settings
Member information and setting.

12. More information.
News, about app, feedback, and contact.

➤ IT Solution:

1. By combining a Leap Card (Student Leap Card) with a mobile phone. And use mobile phone leap card to touch on when we get on and get off the bus. That server receives the message to record how many people on the bus. Then the server sends the data to the user. That different from taking the bus before. As we touch on leap card one time when we get on the bus. As the very same take the Luas. when we get on and get off the bus that we need to touch on leap card.

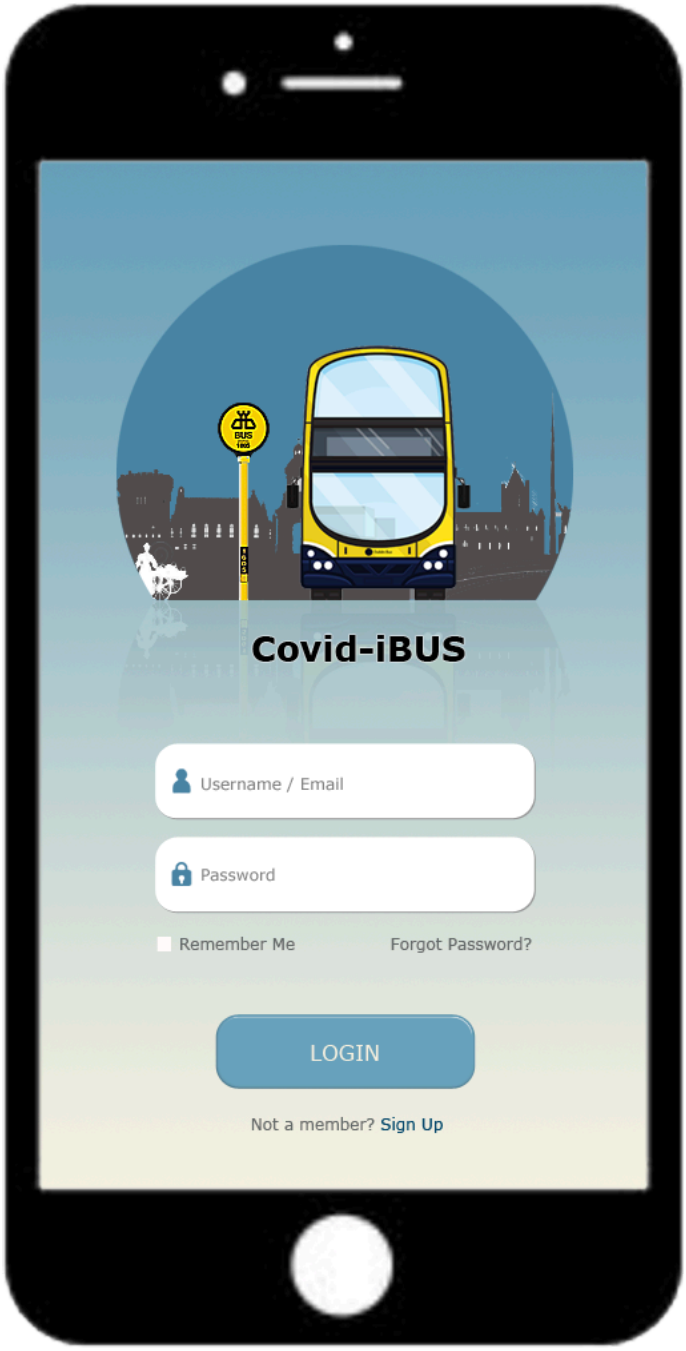
2. Use GPS or Bluetooth to track a user location. When customers log in the app then the server receives IP of that network when you get on the bus that server to know customers current location and the server sends the data to the user.

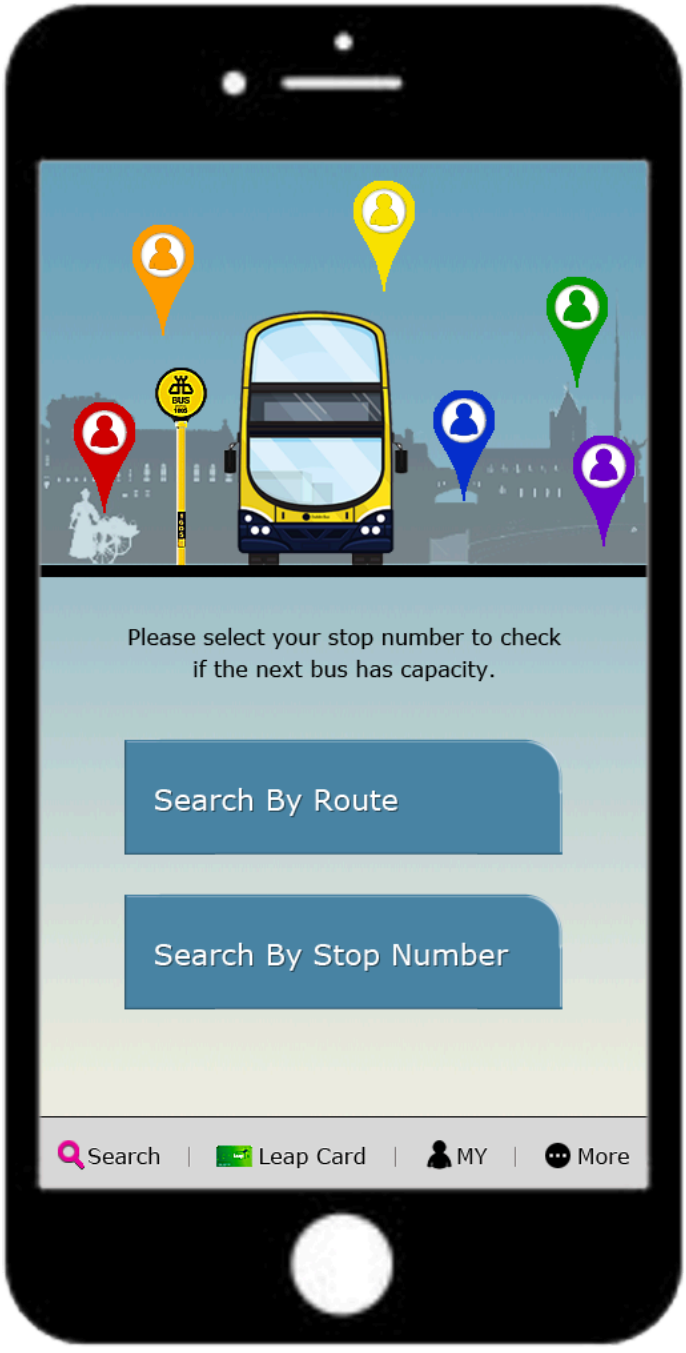
3. Use CCTV of the bus. When customers get on the bus then the server will recode face and count quantity. Then after the server sends data to the user.

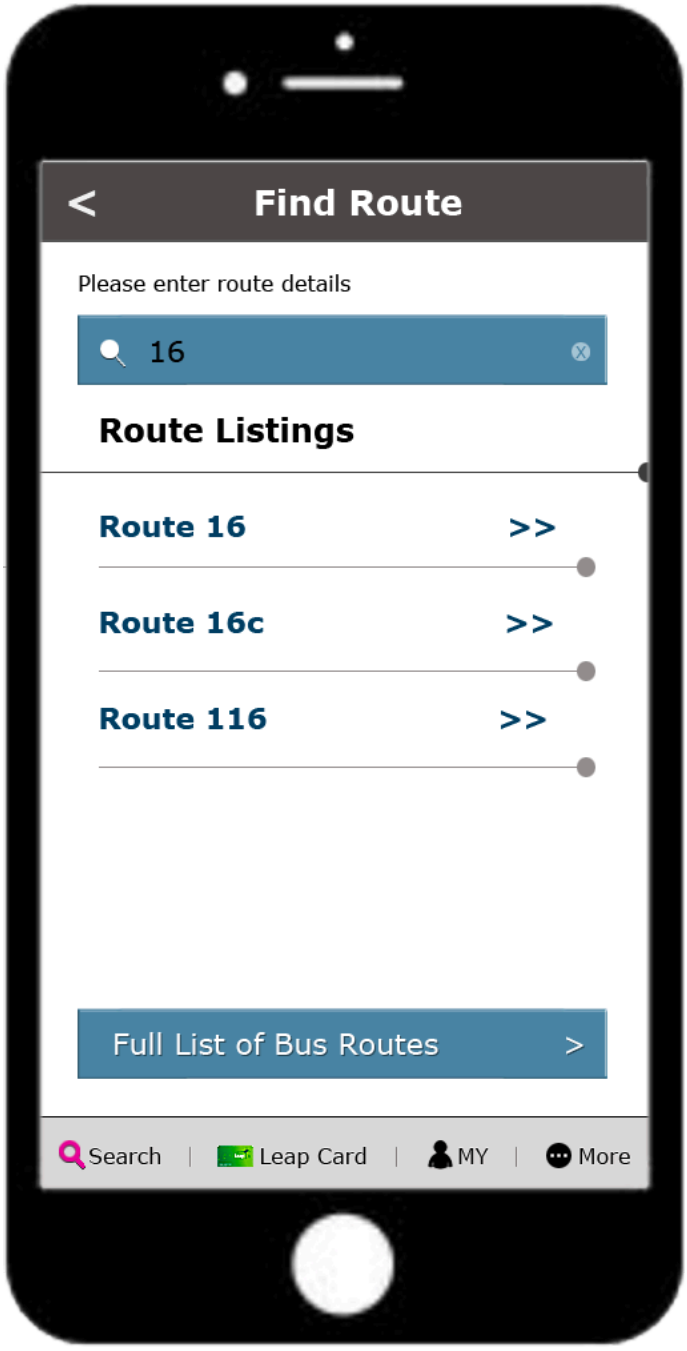
4. Use the bus free WIFI. When customers get on the bus and use the bus free WIFI. Then the server receives the message to count quantity and sends data to the user.

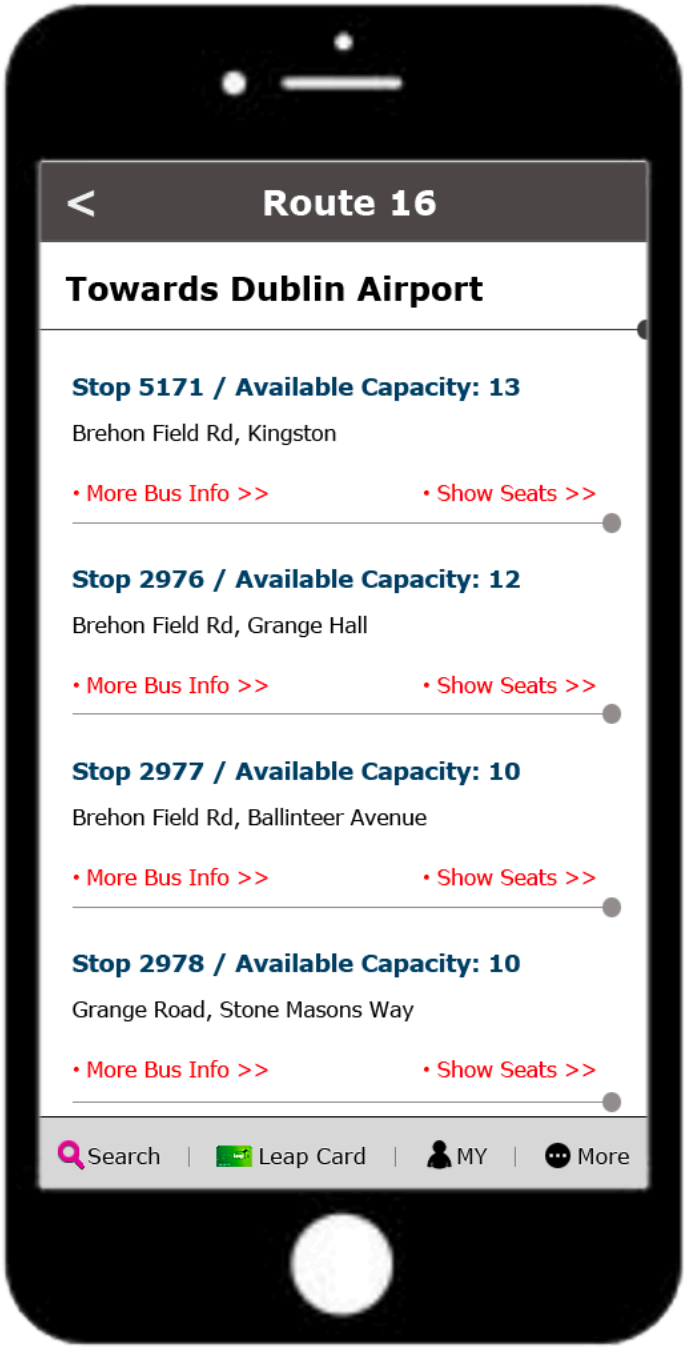
5. Use a Leap Card of mobile phone touch on the machine before you get on and after getting off the bus. That machine takes the message to the server count quantity. Then after the server sends data to the user. The customers get on the bus and show the mobile ticket to the driver.

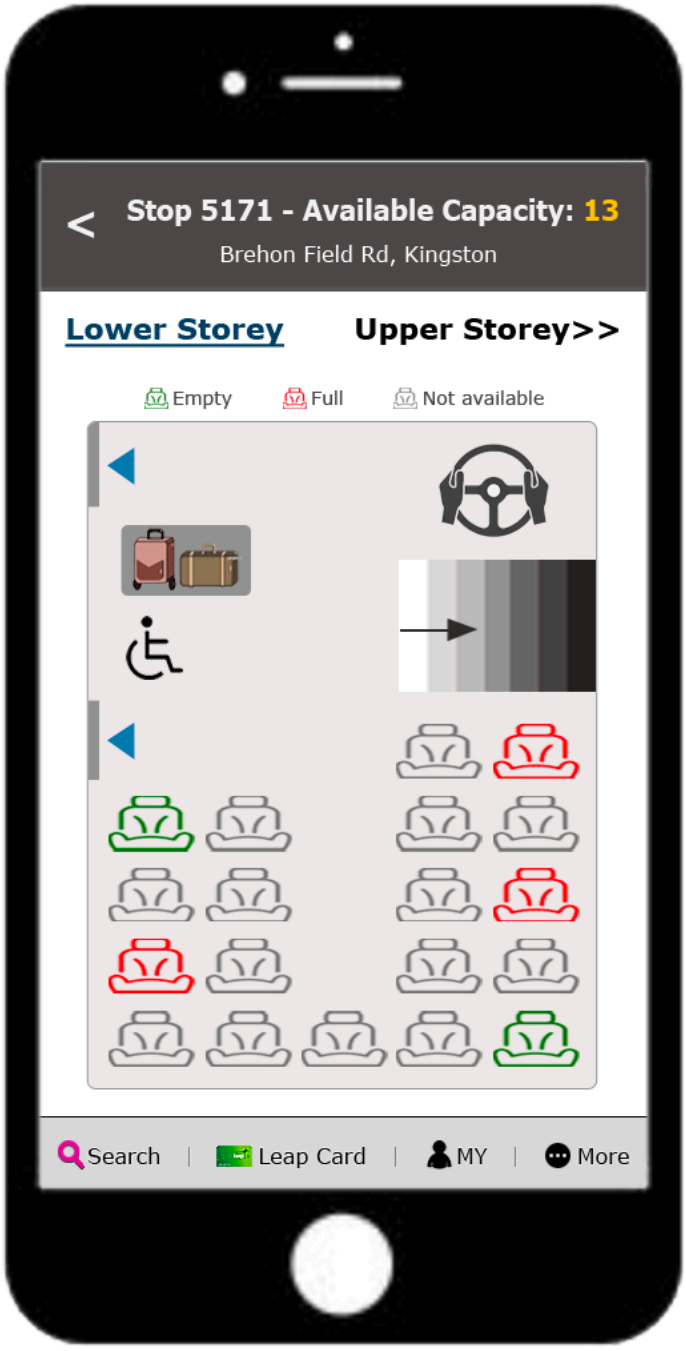
The Tasks 3 / Use Tools: Adobe Photoshop

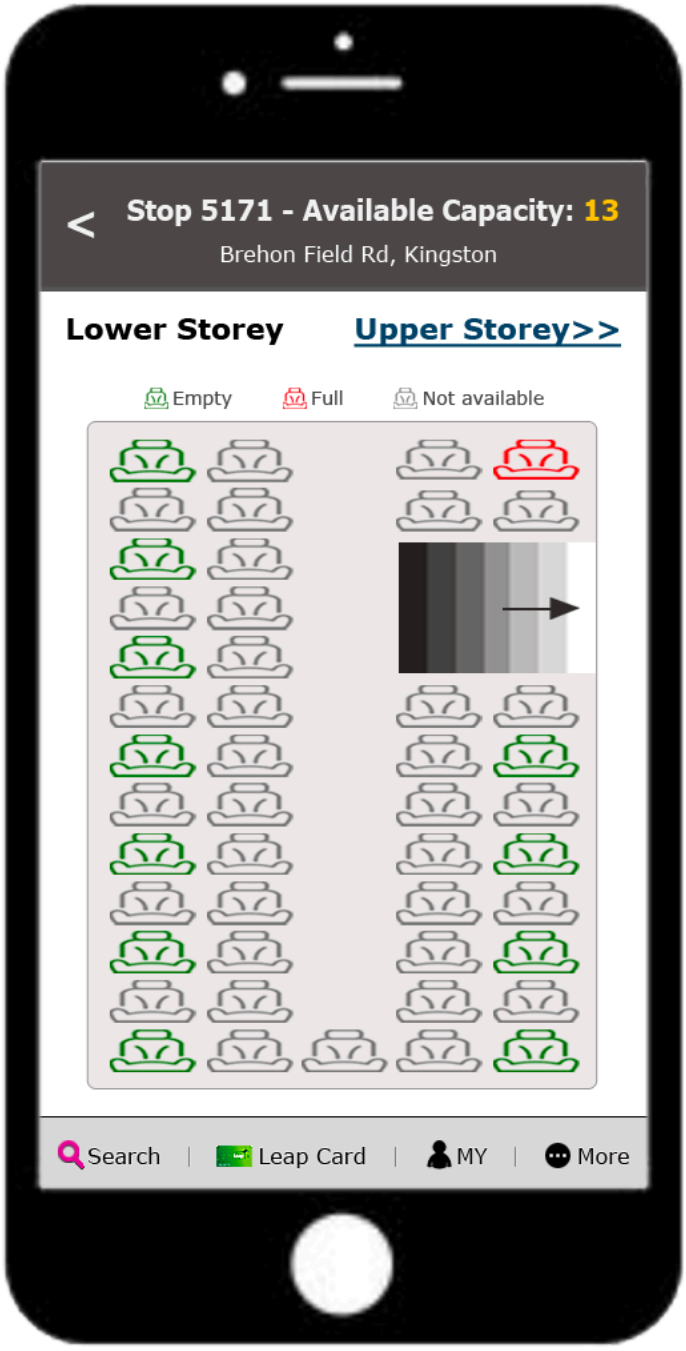


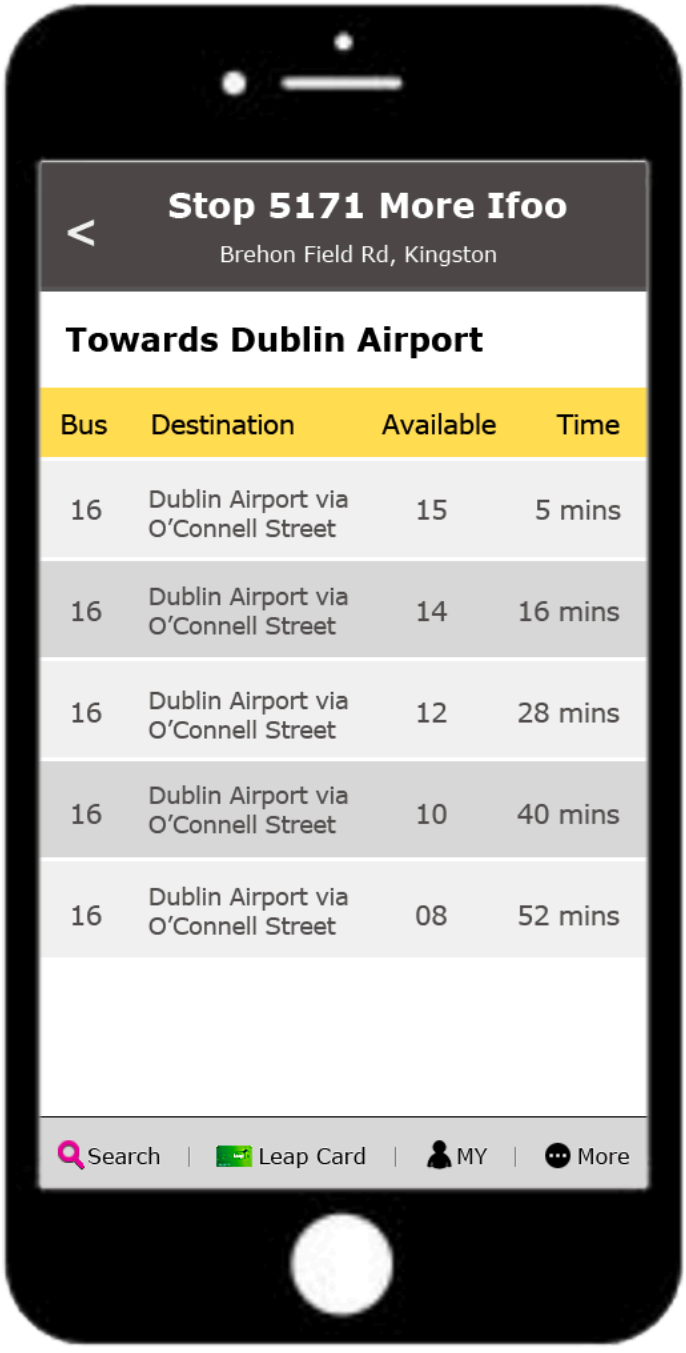

Please select your stop number to check
if the next bus has capacity.
Search By Route
Search By Stop Number
Search
Leap Card
MY
More

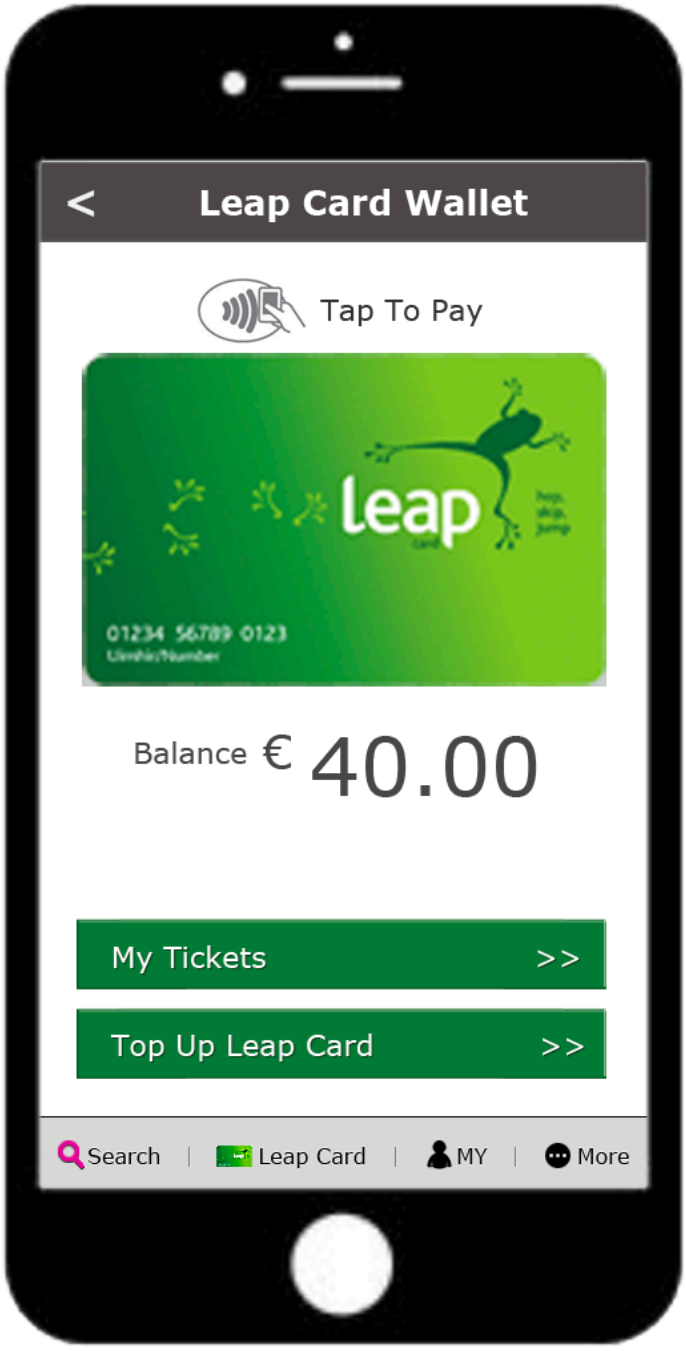

< Find Route
Please enter route details
16
Route Listings
Route 16 >>
Route 16c >>
Route 116 >>
Full List of Bus Routes >
Search | Leap Card | MY | More

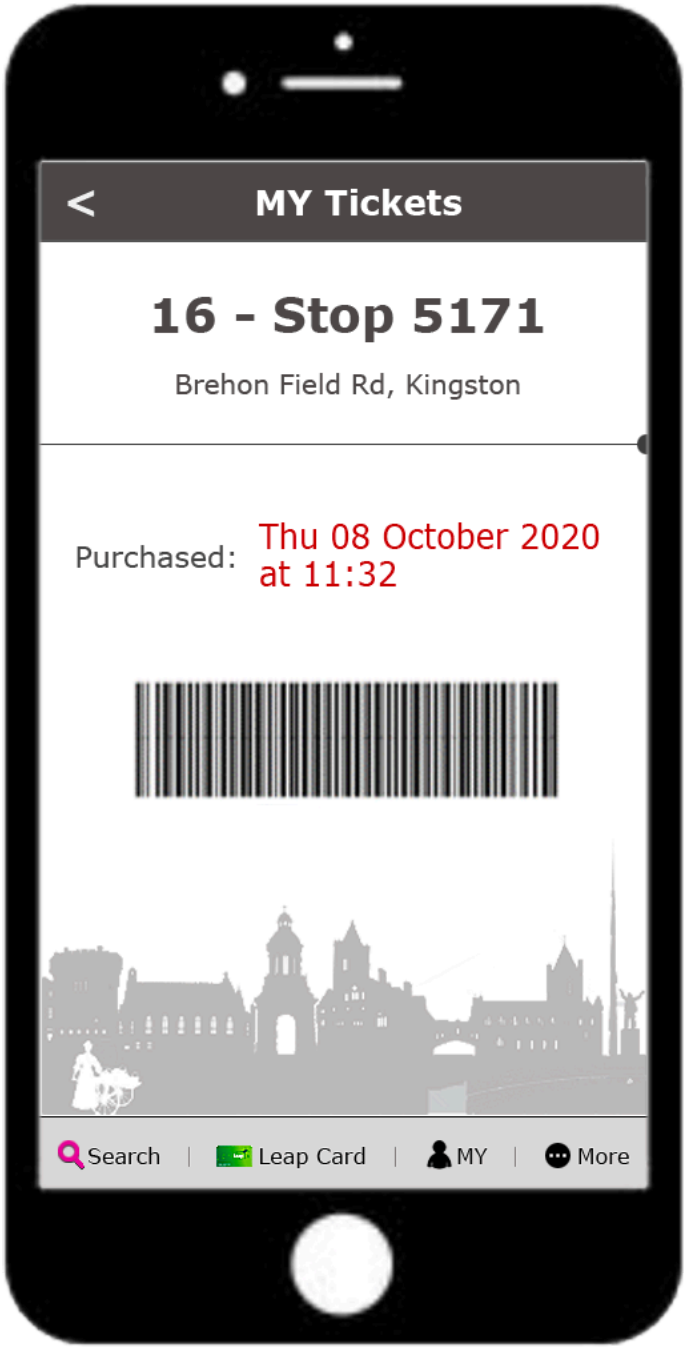

< Route 16
Towards Dublin Airport
Stop 5171 / Available Capacity: 13
Brehon Field Rd, Kingston
• More Bus Info >>
• Show Seats >>
Stop 2976 / Available Capacity: 12
Brehon Field Rd, Grange Hall
• More Bus Info >>
• Show Seats >>
Stop 2977 / Available Capacity: 10
Brehon Field Rd, Ballinteer Avenue
• More Bus Info >>
• Show Seats >>
Stop 2978 / Available Capacity: 10
Grange Road, Stone Masons Way
• More Bus Info >>
• Show Seats >>
Search | Leap Card | MY | More

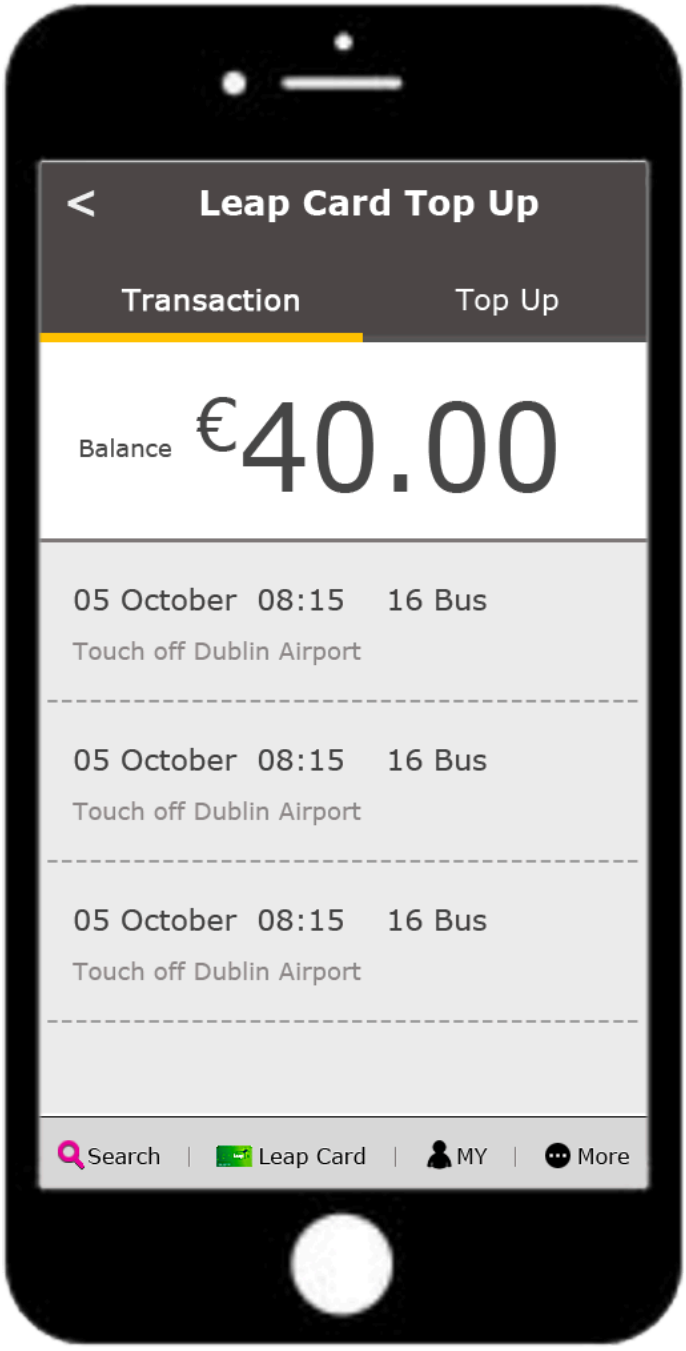

Stop 5171 - Available Capacity: 13
Brehon Field Rd, Kingston
Lower Storey
Upper Storey>>
Empty
Full
Not available
Search
Leap Card
MY
More


Stop 5171 - Available Capacity: 13
Brehon Field Rd, Kingston
Lower Storey
Upper Storey>>
Empty
Full
Not available
Search
Leap Card
MY
More


Stop 5171 More Ifoo
Brehon Field Rd, Kingston
Towards Dublin Airport
Bus Destination Available Time
16 Dublin Airport via O'Connell Street 15 5 mins
16 Dublin Airport via O'Connell Street 14 16 mins
16 Dublin Airport via O'Connell Street 12 28 mins
16 Dublin Airport via O'Connell Street 10 40 mins
16 Dublin Airport via O'Connell Street 08 52 mins
Search | Leap Card | MY | More


< Leap Card Wallet
Tap To Pay
leap
01234 56789 0123
Balance € 40.00
My Tickets >>
Top Up Leap Card >>
Search | Leap Card | MY | More


MY Tickets
16 - Stop 5171
Brehon Field Rd, Kingston
Purchased:
Thu 08 October 2020
at 11:32
Search
Leap Card
MY
More


< Leap Card Top Up
Transaction
Top Up
Balance €40.00
05 October 08:15 16 Bus
Touch off Dublin Airport
05 October 08:15 16 Bus
Touch off Dublin Airport
05 October 08:15 16 Bus
Touch off Dublin Airport
Search | Leap Card | MY | More

The Tasks 4

Some friends told me that they like this app. The app can view how many people on the bus, which seat is available, and each per bus available capacity. That can reduce to wait time. It is really convenient. And they like by combining the leap card (student leap card) with a mobile phone and can top up. It is a good idea.

Some friends told me that they do not want to use GPS to track their location. That is about privacy problem. Most people still worry about their privacy being exposure then so do I.

Some friends said the GPS not exactly. One of a friend asked me how to use Bluetooth to track location? To be honest, I just think about Bluetooth a few second. I have no idea what is Bluetooth. After I search “What is the Bluetooth?” then I understand it. Bluetooth is a wireless technology, it only works within a short distance that allows the exchange of data between different devices. So my app can not use Bluetooth to perform.

One of a friend told me that I can use CCTV of the bus. When we get on bus and server will recode face and count quantity. Then after the server sends data to the user. Another friend told me that I can use the bus free WIFI. When customers get on the bus and use the bus free WIFI. Then the server receives the message to count quantity and sends data to the user.

One of a friend told me, that touch on can same with Luas. Before touch on getting the bus when customers wait the bus then server receives the message how many people will get the bus. After server count quantity then sends data to the user. Let the user know how many people will get the bus. When customers get off of the bus then touch on again to count quantity data. Because my friend said, if customers touch on the bus may be some customers will not touch on the machine that can not collect data. But I think about that if customers do not touch on before getting on the bus. That problem is the same. After I think about it and that maybe can same with the Aircoach Mobile Ticket. When customers touch on before getting the bus then customers get on the bus show mobile ticket to the driver.

The Tasks 5

In my opinion, everyone takes the phone everywhere. Why do not use mobile phone touch on taking the bus? When we take the bus then need to take the wallet and take the student leap card to touch on. Why take the trouble to do that? So that inspire my design to by combining the leap card with a mobile phone. That is my design to do first.

Then I thought about why customers were not allowed to see which seats were available before taking the bus. So I design the display the seats of the bus.

First, I designed the home page of the app that customers log in or sign up the app. Because the Leap Card (student leap cap) need to sign up to do use and top up. Then designed the Leap Card page. When logging in-app that display Leap Card to tap to pay and Show ticket page to driver. Then I designed the Leap Card transaction that displays some information and Tops up.

After I designed the search by the route and stop station two pages. If customers input 16 of bus number that appears similar 16 number listing. When customers choose 16 that appear two directions can select. Then the page display how many seats are available and display the bus seats and available capacity.

As my friends asked me where can they know the next bus time? I realized that I did not design this page. So I designed it and the next bus time and available capacity each per bus.