Artifacts of the backend

Sign_up:

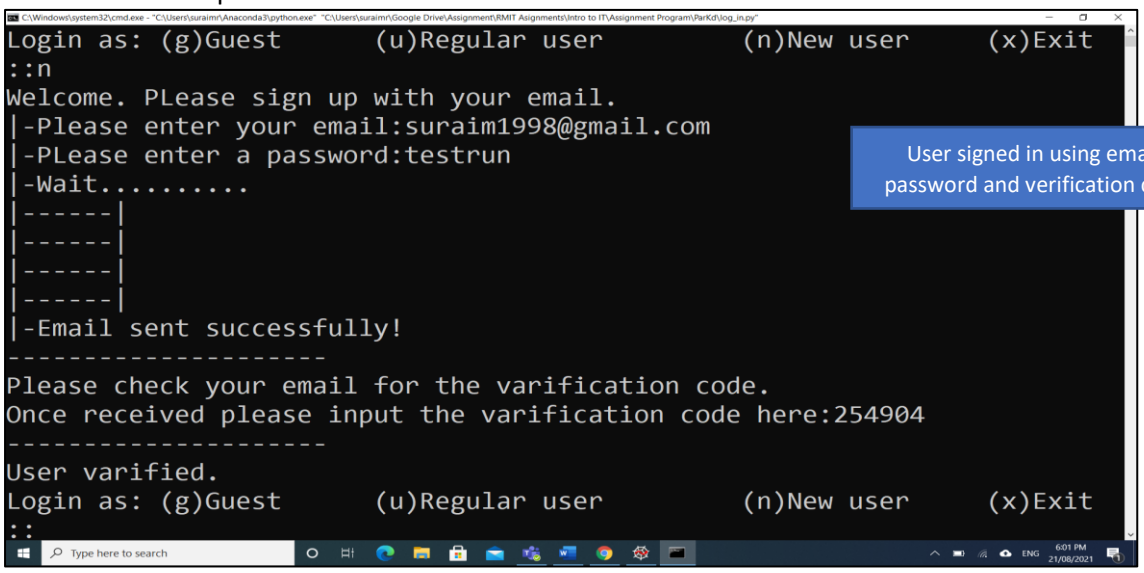
#Module – Github link

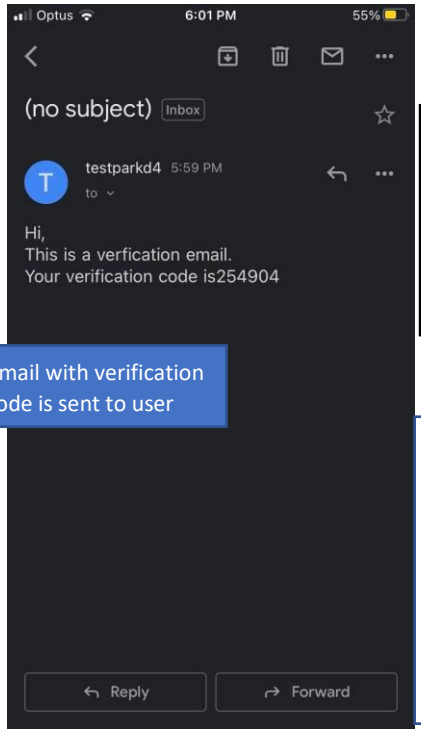
BackEnd structure:

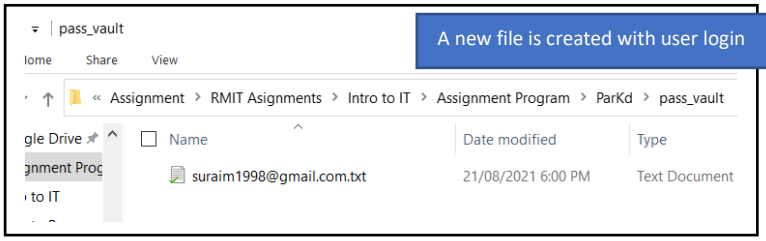
Function	Modules	Parameter	Return
Sign up	N/A	Void	Username, Password
Hashing algorithm	Fernet (128bit)	Username, Password	N/A
Verification_email	SMTPlib, random	Username	verification_code
User_verification	N/A	Username, password, Verification_code	True/Flase
New_user	N/A	Void	Username, Password

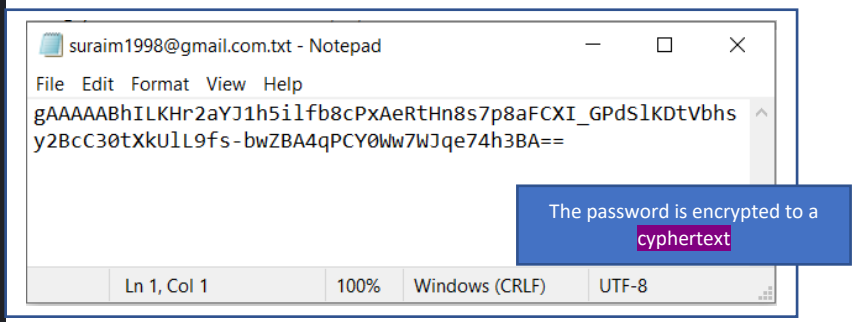
User manual –

a. Choose 'n'.
b. Input email address and preferred password.
c. Input the verification code sent to the user email









Log_in:

#Module – Github link

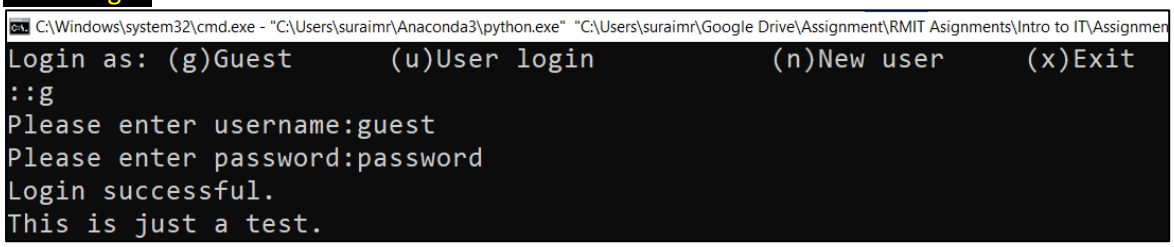
BackEnd structure:

Function	Modules	Parameter	Return
Produce key	Fernet (128bit)	Void	Master key
Key load	Fernet (128bit)	Void	Hash_key
Encp	Fernet (128bit)	Username, password	N/A
Decp	Fernet (128bit)	Username	Raw(password)/exception-true
Class – UI.__init__	N/A	self	N/A
Class – UI.pass_check	N/A	self	True/None
Class – UI.guest	N/A	Void (@staticmethod)	N/A
User_access	Fernet (128bit)	Void	True

User manual –

a. g – Guest login (Beta version)
b. u – User login
c. n – New User (Calls the Sign_up module)
d. x – Exit (Exits program)

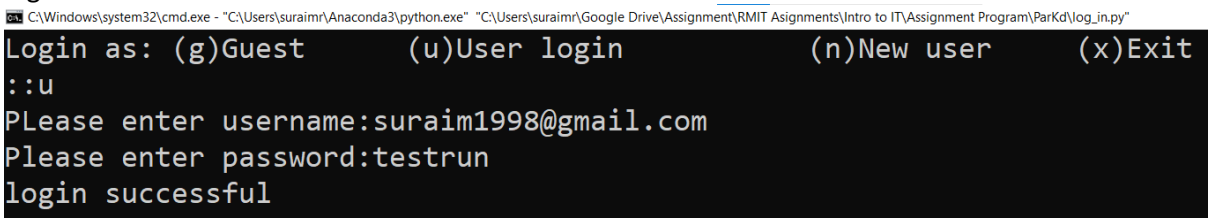
Guest Login:



This will ideally be used for people who rather to skip the signup for the time being and rather to just watch the interface and see the functions of the application.

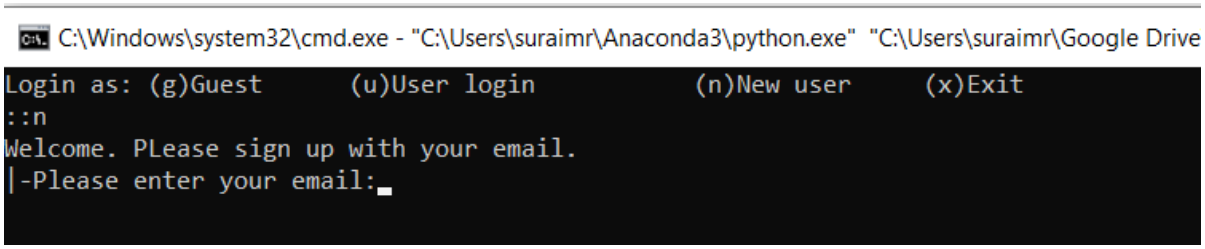
User login:

Right credentials:



New User:

Allows users to sign up.



Map:

#Module – Github Link

BackEnd structure:

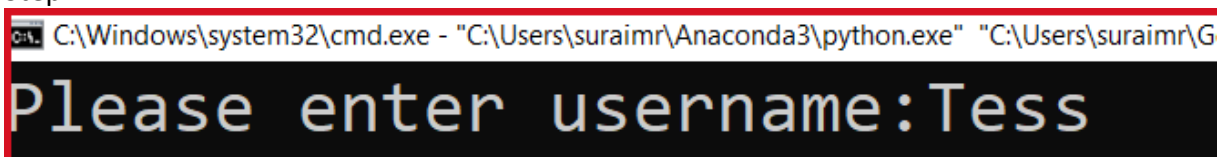
Function	Modules	Parameter	Return
location_finder	Geopy.geocoders.Nominatim	Void	Latitude, longitude
general_map	Folium	Void	N/A
custom_location	Folium	Latitude, Longitude	N/A
Free_Parking	Folium	Latitude, Longitude	N/A
paid_parking	Folium	Latitude, Longitude	N/A
show_map	Webbrowser, pyautogui, Time	username	N/A

User manual –

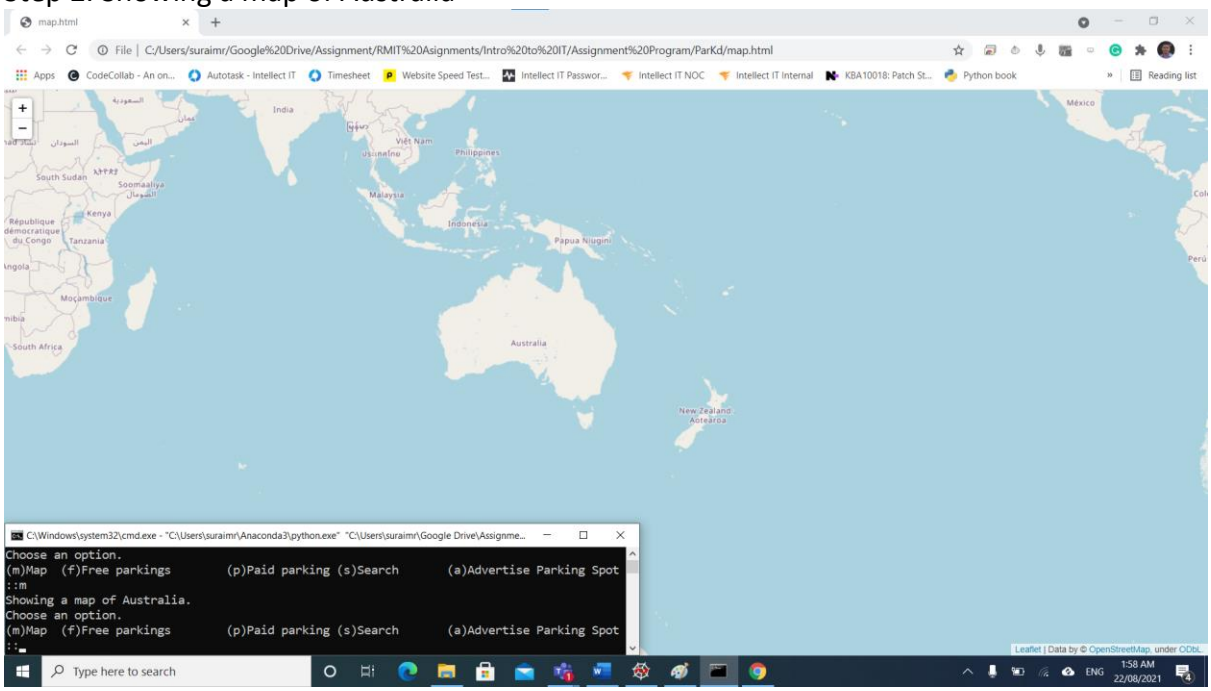
a. Input a username
b. m – Map (Shows a map of Australia)

c. f – Free Parking (User can specify where they are going, and the app will show them nearby free parking spot)
d. p – Paid Parking (User can specify where they are going, and the app will show them nearby paid parking spot)
e. s – Search (Shows a pointer on the location, the user is going)
f. a – Advertise parking spot (Host can advertise their parking spot and choose if it is paid or free.)

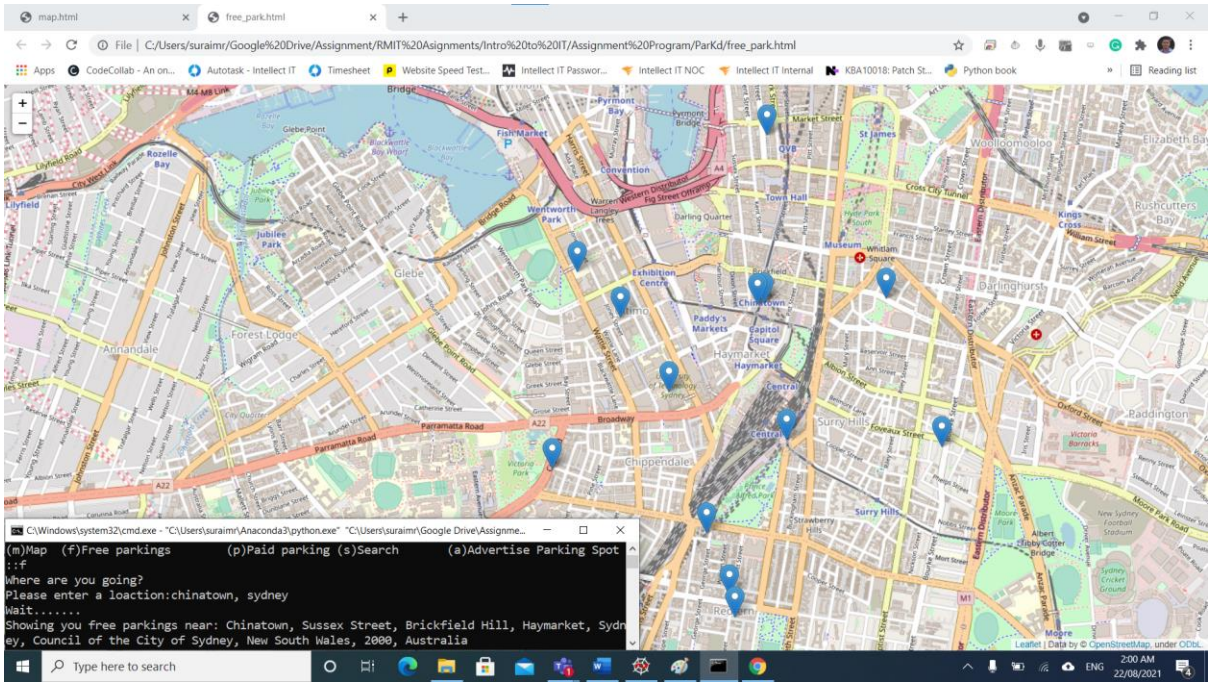
Step 1.



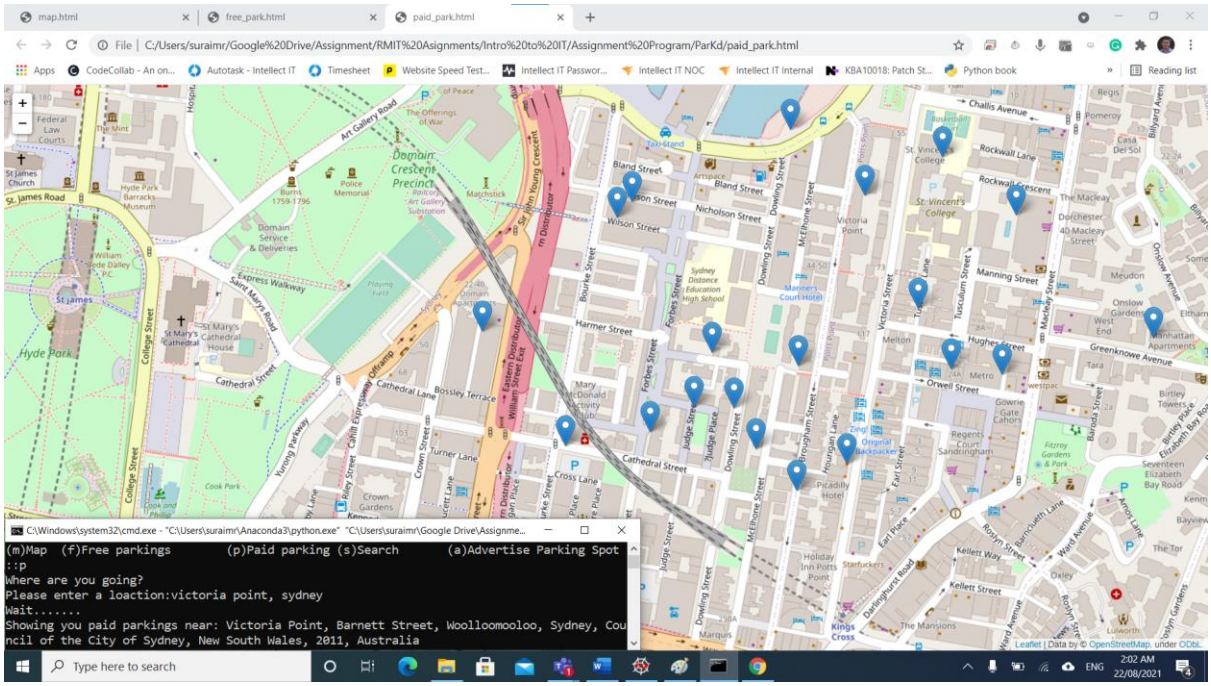
Step 2. Showing a map of Australia



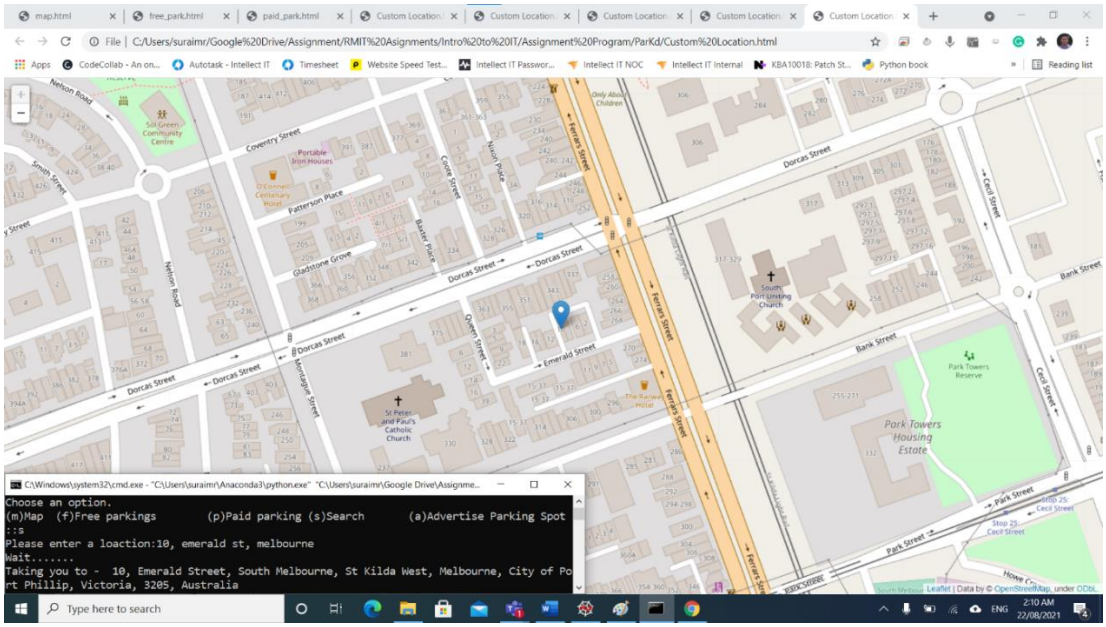
Step 3. Free parking near the specified location.



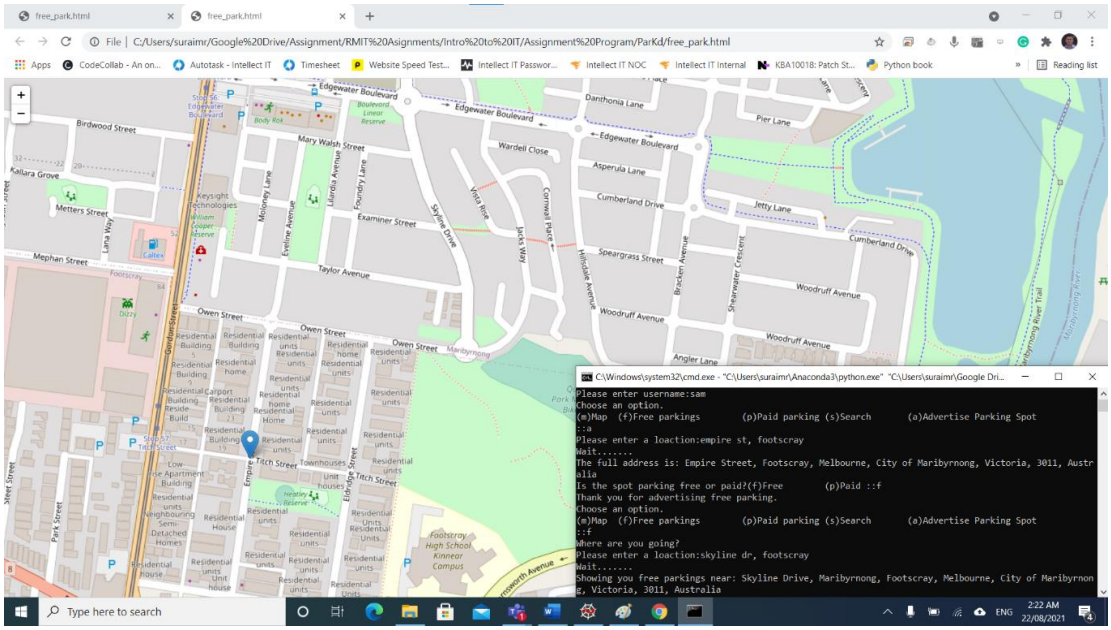
Step 4. Paid parking near the specified location.



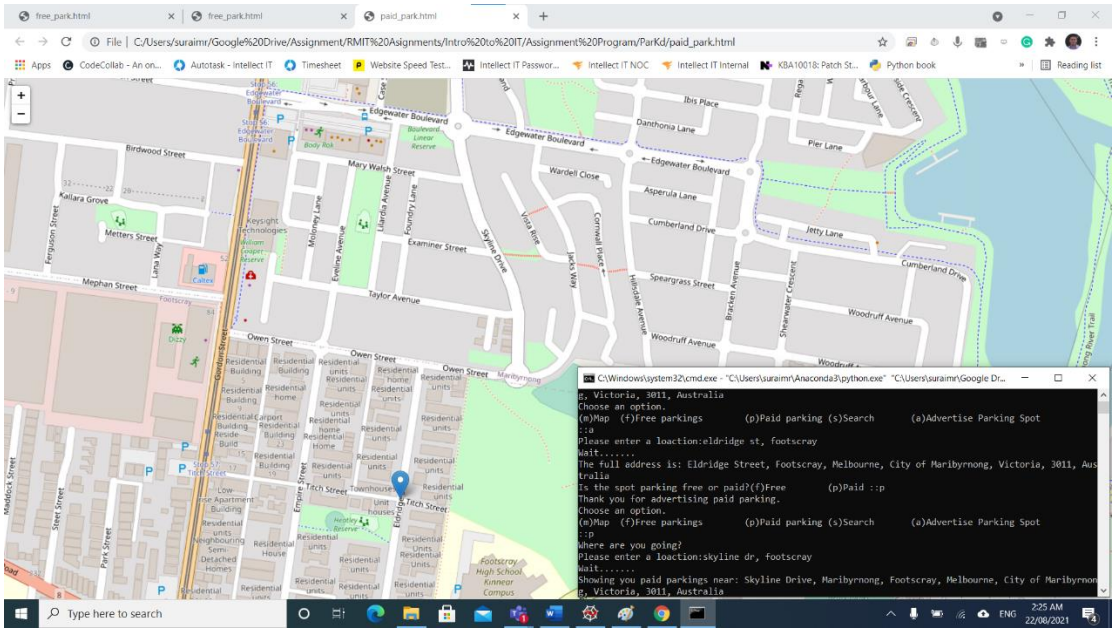
Step 5. A pointer of the address where user is going. This can be used for confirming the address by visual representation. User can check the address in this way, before they advertise their parking spot. Or user can simply just see the location.



Step 6. Advertise a free parking spot



Step 7. Advertising a paid parking spot



QR_code:

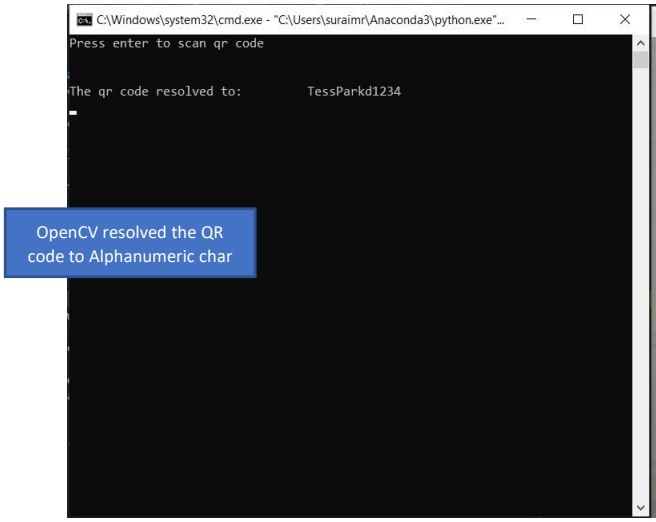
#Module – Github Link

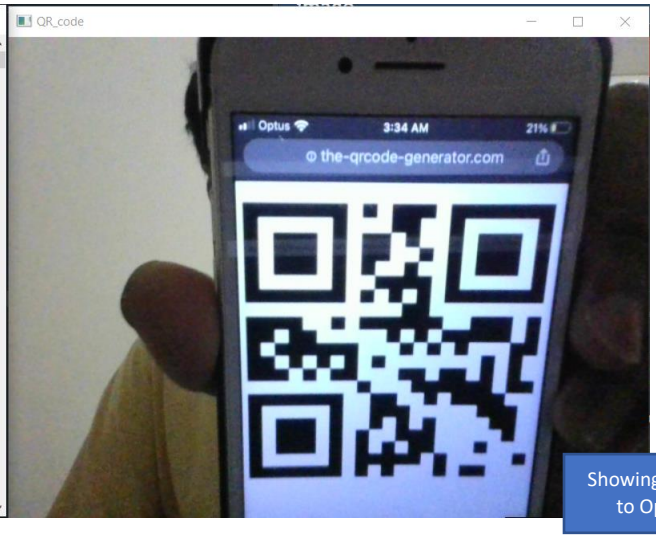
BackEnd structure:

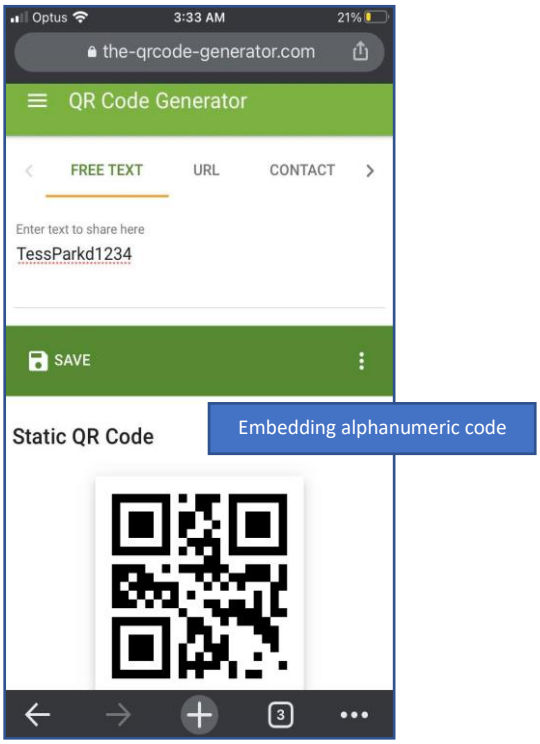
Function	Modules	Parameter	Return
Qrcode_reader	Opencv-python, msvcrt	Void	N/A

User manual –

a. Bring the QR_code near the camera or vice versa
b. Press the enter button to scan the QR code.
c. A photo will be shown back to you as a confirmation
d. The user ID will be resolved from the QR code.
e. This user ID will be used for keeping a record. Eg. The user ID of the host will be associated with latitude and longitude in the free_parking.csv or paid_parking.csv. Upon scanning that record will be moved to app essentials folder or archive file. When, a rider scans the QR code, that free/paid parking will not be advertised anymore. Once, rider checks out, then the user ID, which was associated with the latitude and longitude of the map, will be advertised again.







Save_info:

#Module – [Github Link]

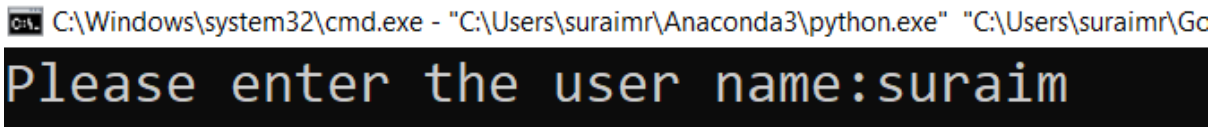
BackEnd structure:

Function	Modules	Parameter	Return
Vehicle info	N/A	Void	N/A
Payment info	N/A	Username	N/A
Host rating	N/A	Username	N/A
Choose mode	N/A	N/A	N/A

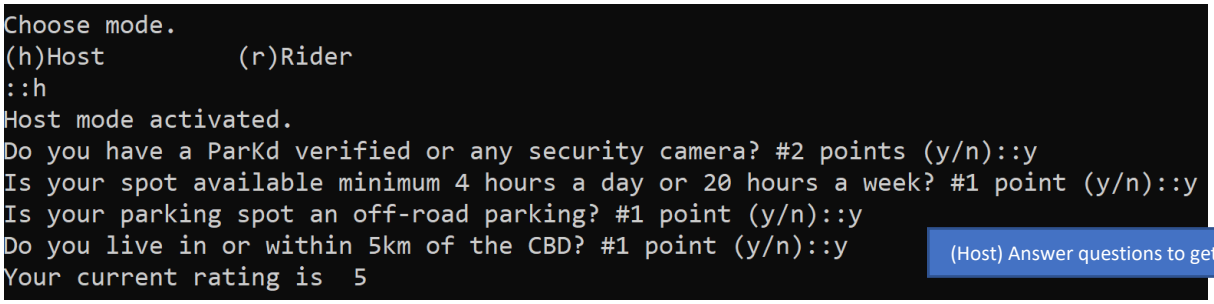
User manual –

a. Enter username.
b. h/r – Host/Rider mode
c. Host mode – Answer questions to get a rating out of 5 to boost their advertisement.
d. Rider mode – Save payment or vehicle info

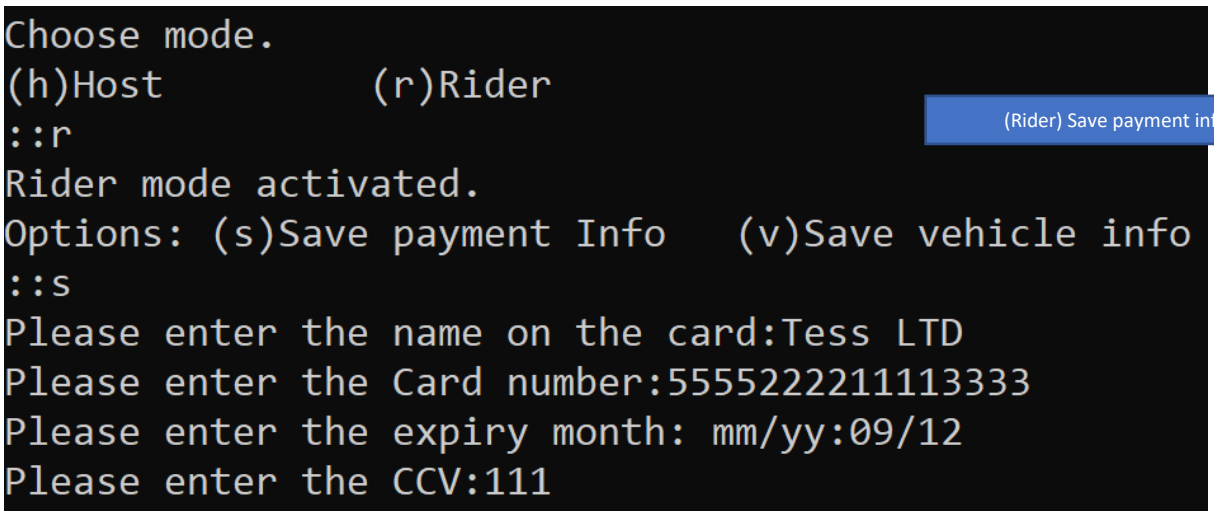
Enter username: (If implemented the username will be collected from log_in_final.py module, when the user logs in) For prototype we just use a temporary user.

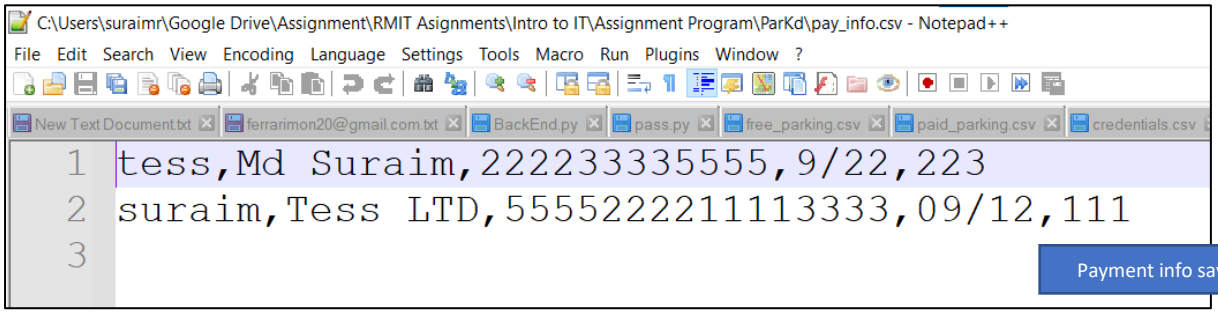


Choose mode: (Host)



Choose mode: (Rider)

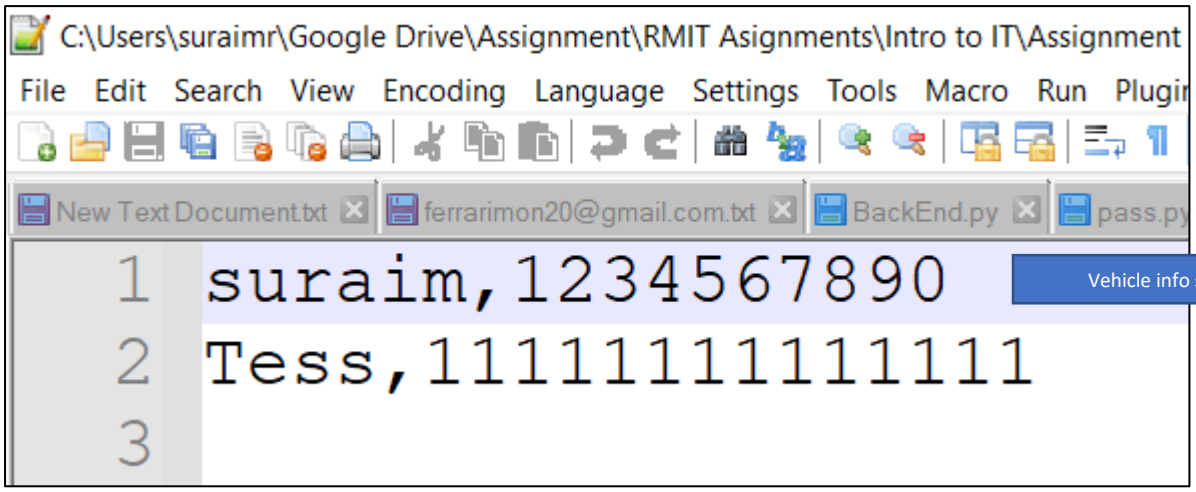




C:\Windows\system32\cmd.exe - "C:\Users\suraimr\Anaconda3\python.exe" "C:\Users\suraimr\Google Drive\Assignment\RMIT Asignments\Intro to IT\Assignment Program\ParKd\Dashboard

```
Please enter the user name:Tess
Choose mode.
(h)Host         (r)Rider
::r
Rider mode activated.
Options: (s)Save payment Info   (v)Save vehicle info
::v
Please enter your vehicle registration number:11111111111111
Vehicle info saved.
```

(Rider) Save vehicle info



Vehicle info saved