
Team Yeagerists

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PUBLIC SQUARE PHASE II: Design Report For NYC Public Wi-Fi-Hotspot

I. INTRODUCTION

Our team is developing a web-based application for **Public Square**. An online platform that provides information of every public wi-fi hotspot throughout the five boroughs of New York City. This web-based application allows the user to navigate these hotspots information through by searching the hotspot. The platform also allows the user to rate and write reviews on the selected hotspot. The software gives total control to the admin to control all sorts of activities that ensure a smooth transition of updating, adding, and deleting the wi-fi hotspots. Among other things, users can find basic information related to the hotspot such as provider information, location of the hotspot, name of the hotspot and many more.

Team Yeagerists is using Python's **Django** to satisfy the requirements of the system. We chose Django because it is a high-level, free, and open-source web framework that provides a clean and pragmatic design. And, because it offers a built-in back end that is super important when starting a project.

The overall picture of the system is depicted in **Figure 1** through a Collaboration Class diagram. The top-level users' interactions of what is intended from the software are summarized in the diagram.

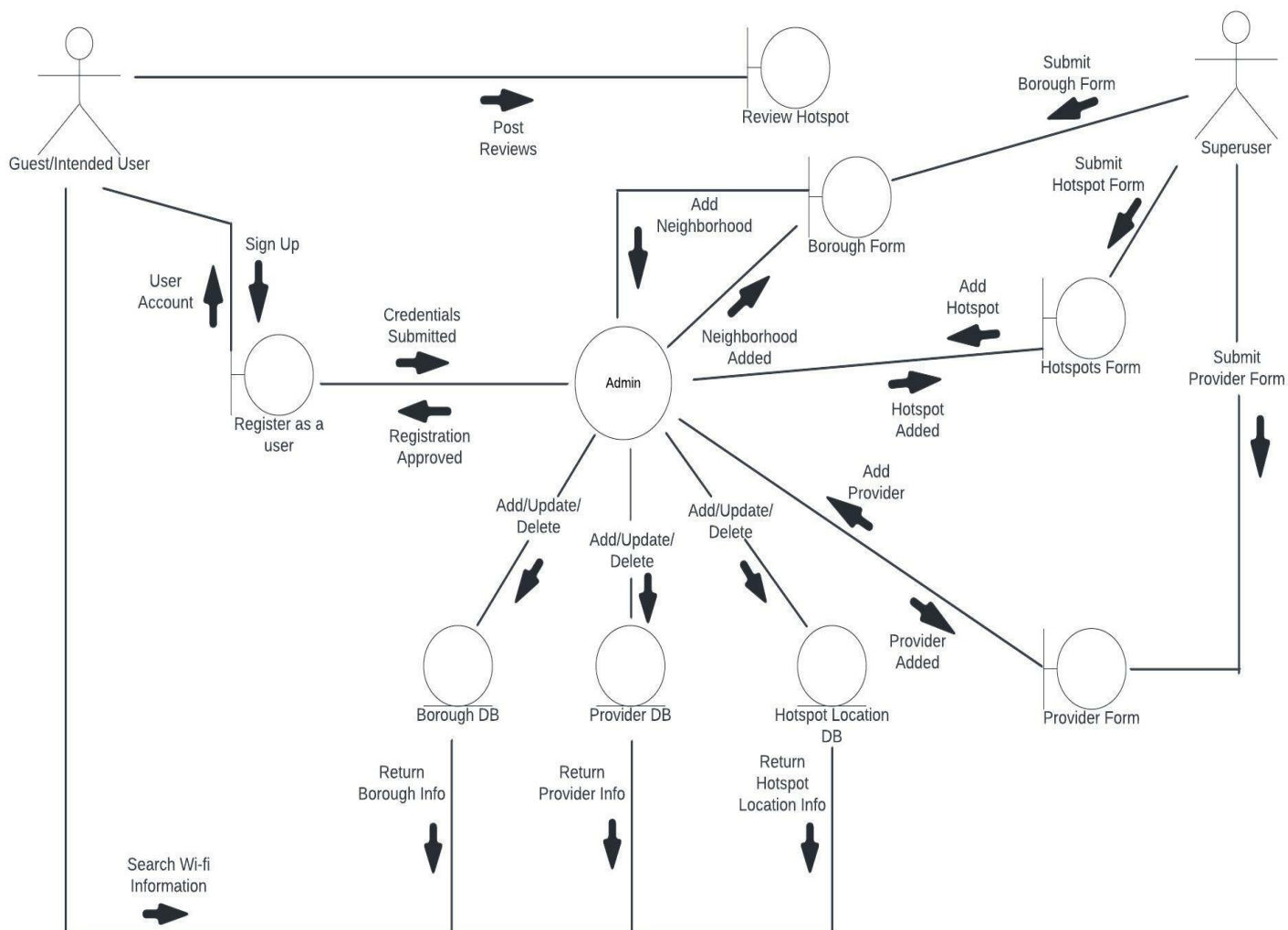
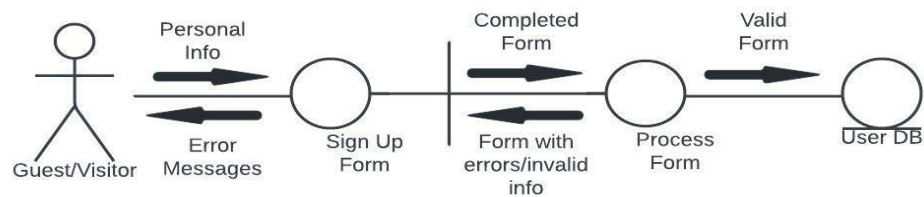


Figure 1: Overall picture of the system using Collaboration Class Diagram

II. DIAGRAMS FOR EACH USE CASE

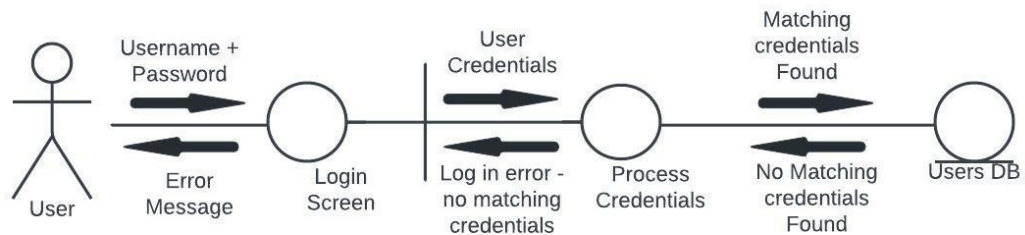
User Application:

- Normal scenario(s):
 - Guests fills out form with correct/valid information and it is submitted, stored in database.
- Exception(s):
 - User tries to submit form with invalid information (e.g., incorrect email format)



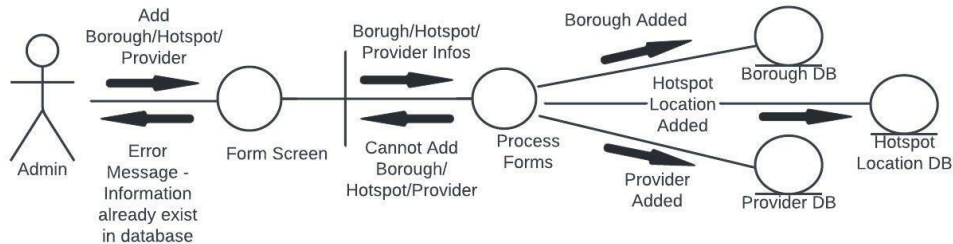
Log In:

- Normal scenario(s):
 - User inputs his/her credentials that are correct, the user is authenticated and logs in successfully.
- Exception(s):
 - Username and/or password don't match/incorrect.



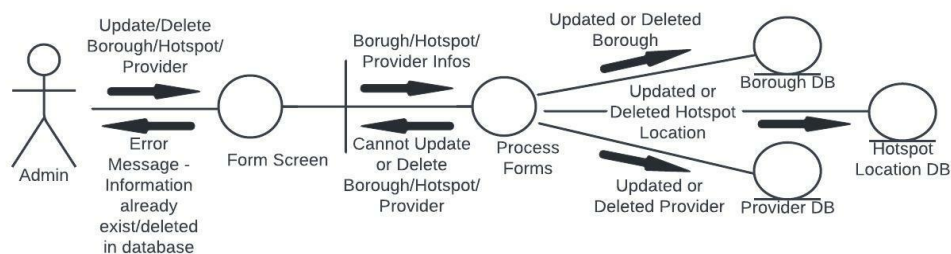
Add Borough/Hotspot Location/ Provider:

- Normal scenario(s):
 - Admin inputs credentials that are correct, credentials are checked if they exist in the database. Forms are processed and Borough/Hotspot Location/Provider added in the database if they do not exist.
- Exception(s):
 - Credentials for Borough/Hotspot Location/Provider already existed in the database.

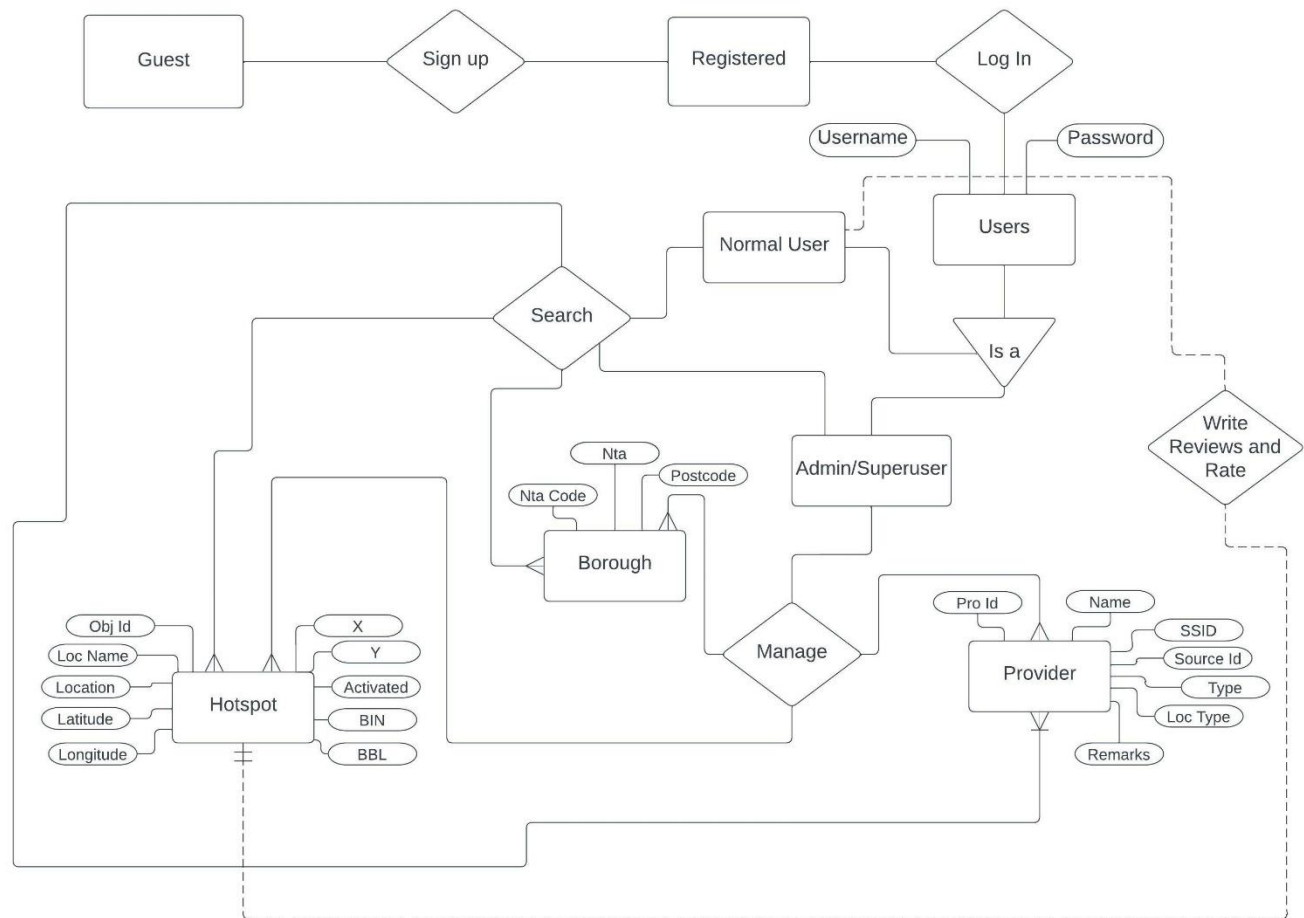


Update or Delete:

- Normal scenario(s):
 - Admin inputs credentials that are correct for Borough/Hotspot Location/Provider, credentials are checked if they exist in the database. Forms are processed and Borough/Hotspot Location/Provider either updated or deleted in the database if updated information do not exist.
- Exception(s):
 - Credentials entered to update Borough/Hotspot Location/Provider already existed in the database.
 - Borough/Hotspot Location/Provider already deleted in the database



III. E-R Diagram of the whole system



When a guest signs up as a normal user, the system assigns the person a username and password. An admin can also be a user. The admin oversees data management, which includes adding, updating, and deleting data such as Neighborhood information, Hotspot Location, and Provider Information. The information needed to add these data can be seen on the ER-Diagram above. A user can write a review and also rate the hotspot location. Both the admin and the normal user can search for the information of Wi-Fi Hotspot, the search engine will then return the information about the searched Hotspot.

IV. DETAILED DESIGN

For methods of main functionalities, pseudo-code is used to describe the input/output interactions of the system.

ENROLLMENT SYSTEM

SYSTEM PROMPT Guest to enter informations

GET guest informations

IF (All info have the right syntaxes)

DISPLAY Registration Successful.

ELSE

DISPLAY Registration Failed. TRY Again

LOGIN PAGE

PROMPT User to enter Infos

GET Username

GET Password

IF(User.username == usernameEntered && User.password == Enteredpwd):

Login Successful

IF (User is a normal

user) Display

user.info Display

Elif (User is an admin)

Display info

Display Add Borough

Display Add Hotspot

Display Add Provider

Display Neighborhood List

Display Hotspot List

Display Provider List

ELSE

Login Failed

ENDIF

**HOTSPOT LOCATION/NEIGHBORHOOD/
PRIVIDER REGISTRATION.**

SYSTEM AUTHENTICATES USER

IF (USER is an admin)

DISPLAY Registration Form

Prompt admin to input data

IF (obj_id is unique)

Prompt admin to register data

IF (no conflict)

*DISPLAY success message: Hotspot Location
registered*

ELSE:

*DISPLAY Hotspot Location already
existed*

ENDIF

ENDIF

ENDIF

UPDATE OR DELETE HOTSPOT LOCATION

System authenticates users

IF (User is an admin)

Display Hotspot Location List

*Prompt User to select to be updated
or deleted.*

IF (hotspot_location selected)

*Prompt user to update or delete selected
hotspot location*

IF (user updated or deleted selected data)

*DISPLAY success message: Hotspot Location
List Updated/Deleted*

ELSE:

DISPLAY ERROR message

ENDIF

ENDIF

ENDIF

UPDATE OR DELETE NEIGHBORHOOD/

PRIVIDER

System authenticates users

IF (User is an admin)

Display Neighborhood List

*Prompt User to select to be updated
or deleted.*

IF (neighborhood selected)

*Prompt user to update or delete selected
neighborhood*

IF (user updated or deleted selected data)

DISPLAY success message: Neighborhood List

Updated/Deleted

ELSE:

DISPLAY ERROR message

ENDIF

ENDIF

ENDIF

UPDATE OR DELETE PROVIDER

System authenticates users

IF (User is an admin)

Display Provider List

*Prompt User to select to be updated
or deleted.*

IF (provider selected)

*Prompt user to update or delete selected
provider*

IF (user updated or deleted selected data)

DISPLAY success message: Provider List

Updated/Deleted

ELSE:

DISPLAY ERROR message

ENDIF

ENDIF

ENDIF

REVIEW COURSES

System authenticates users

IF (User is a normal user)

Display WIFI Hotspot with review option

ENDFOR

Prompt User to select to reviewed.

IF (Hotspot selected)

Hotspot review form

Prompt User to fill the review form

IF (form has the right syntaxes)

Display success message: Review posted

Else

Display error messages.

ENDIF

ENDIF

ENDIF

V. SYSTEM SCREENS

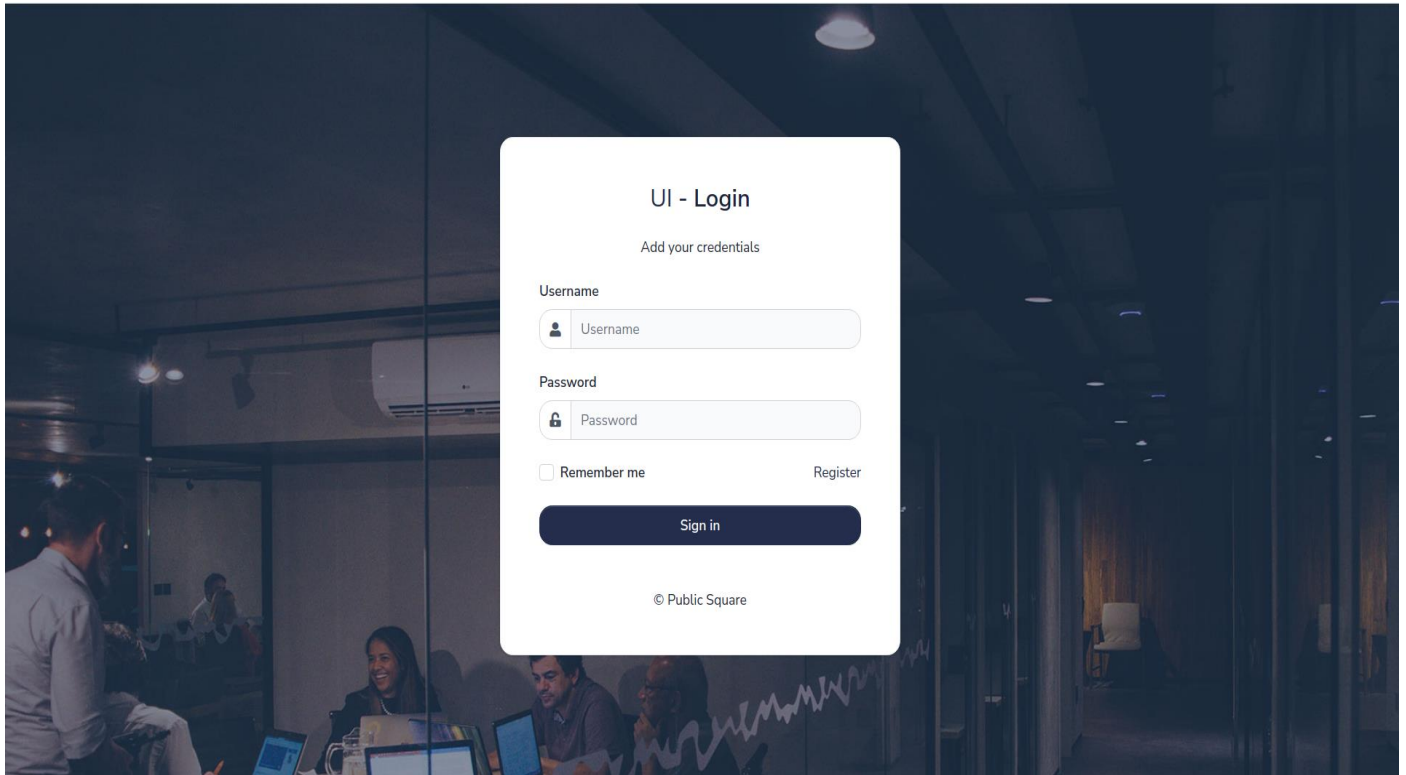


Figure 1: Log In form of the system

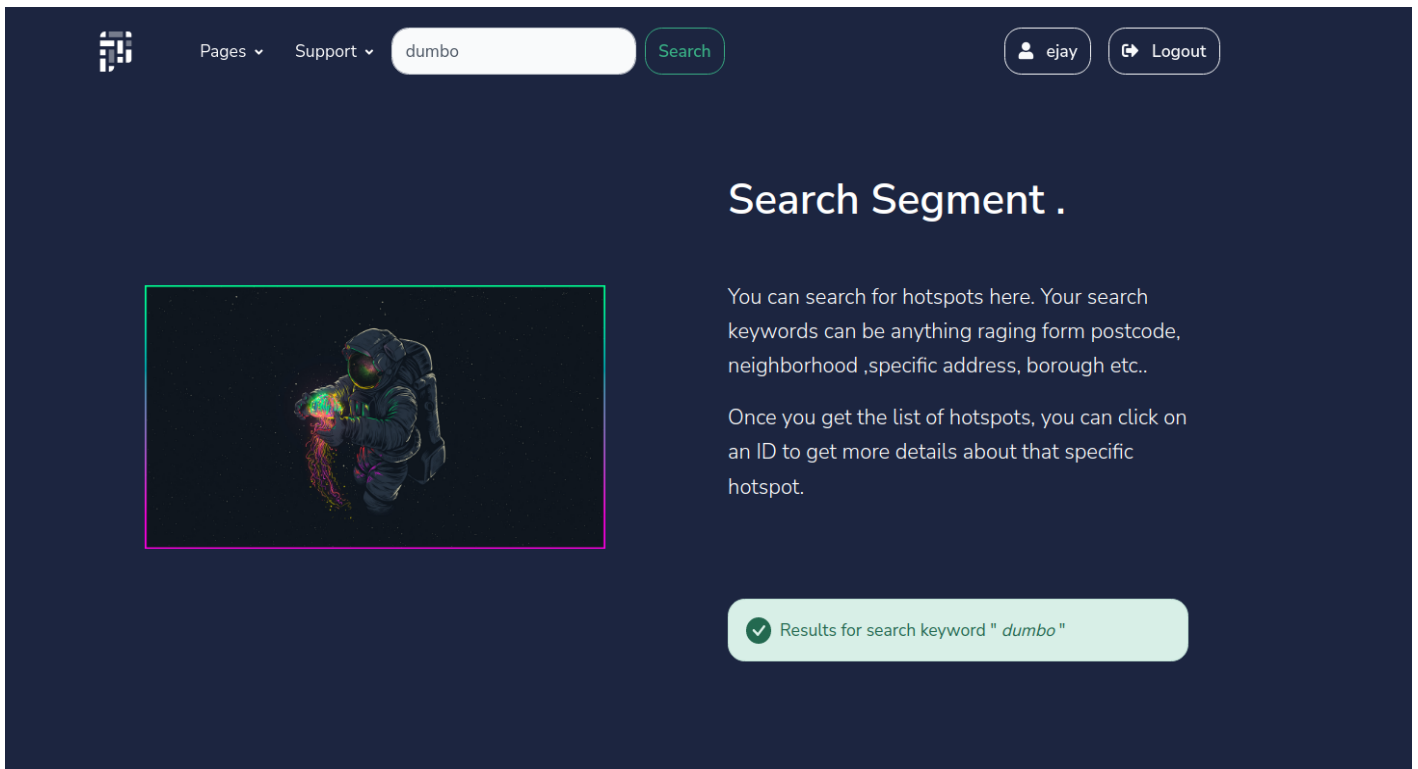


Figure 2: Search function Result screen of the system



Pages ▾

Support ▾

dumbo

Search

ejay

Logout

Search Segment .



You can search for hotspots here. Your search keywords can be anything ranging from postcode, neighborhood, specific address, borough etc..

Once you get the list of hotspots, you can click on an ID to get more details about that specific hotspot.



Results for search keyword "dumbo"

Hotspot ID : 9852


Location: 196 Flatbush Ave.
Extension (Pole)

Neighborhood: DUMBO-Vinegar
Hill-Downtown Brooklyn-
Boerum Hill

Postcode: 11201

Rating:

Figure 3: Result screen of search function when searched for the word "dumbo"




[Pages](#)
[Support](#)

ejay

Logout

Hotspot Profile : 9852

all details about a specific Hotspot



Coordinates

Address: 196 Flatbush Ave. Extension (Pole)

Neighborhood: DUMBO-Vinegar Hill-Downtown Brooklyn-Boerum Hill

Postcode: 11201

Borough: Brooklyn

X: 988.873.26

Y: 192.018.15

Latitude: 40.693721

Longitude: -73.983328

Description

SSID: Downtown Brooklyn WiFi

Source ID:

Location Type: Outdoor

Wifi Type: Free

Remarks:

Provider Info

ID: 6

Name: Downtown Brooklyn

Extra Infos

Date Activated: 9/9/99

BIN : 0

BBL : 0

Reviews

Review Count: 1

Average Rating: 4 ★

Click on "Reviews" to check out the reviews of this hotspot

Figure 4: Detailed information of the searched Hotspot

Pages ▾ Support ▾ ejay Logout

Reviews - ID : 9852

check out what other people think about this hotspot

Hotspot Infos	Review Hotspot
Address: 196 Flatbush Ave. Extension (Pole) Neighborhood: DUMBO-Vinegar Hill-Downtown Brooklyn-Boerum Hill Postcode: 11201 Date Activated: 9/9/99 <hr/> Review Count: 1 Average Rating: 4 ★	Rate <div>★ <input type="text" value=""/></div> Review <div> <input type="text" value=""/> </div> <div>Post</div>

4 ★ by @jb
The hotspot is located at a cool place. There are lots of benches around so you don't have to stand up like an idiot when surfing online. The connection is decent too.
Posted on May 6, 2022, 6:48 p.m.

Figure 5: A sample of the review function of the software

Pages ▾ Support ▾ ejay Logout

Add Hotspot Location

Obj id:
Loc name:
Location:
Latitude:
Longitude:
X:
Y:
Activated:
Bin:
Bbl:

Submit

© Public Square

Figure 6: Adding new Hotspot Location Form

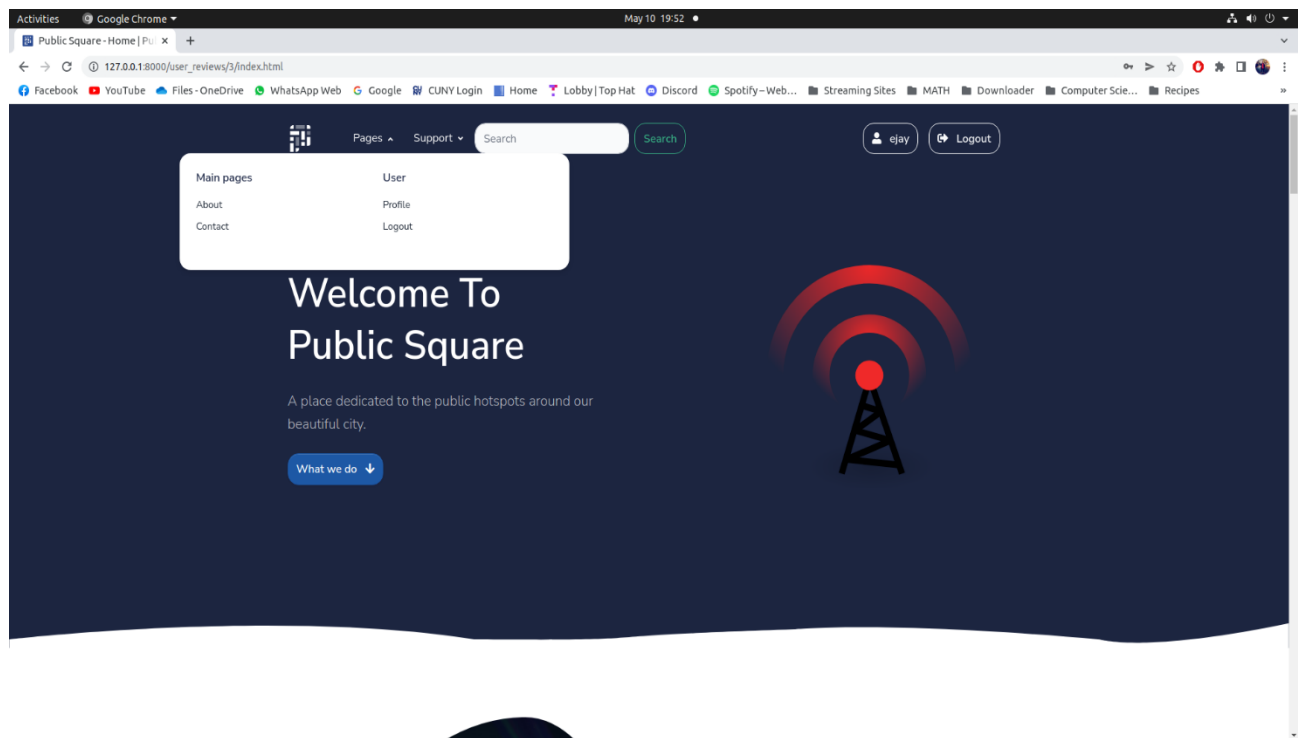


Figure 7: Navigation Bar for a normal user

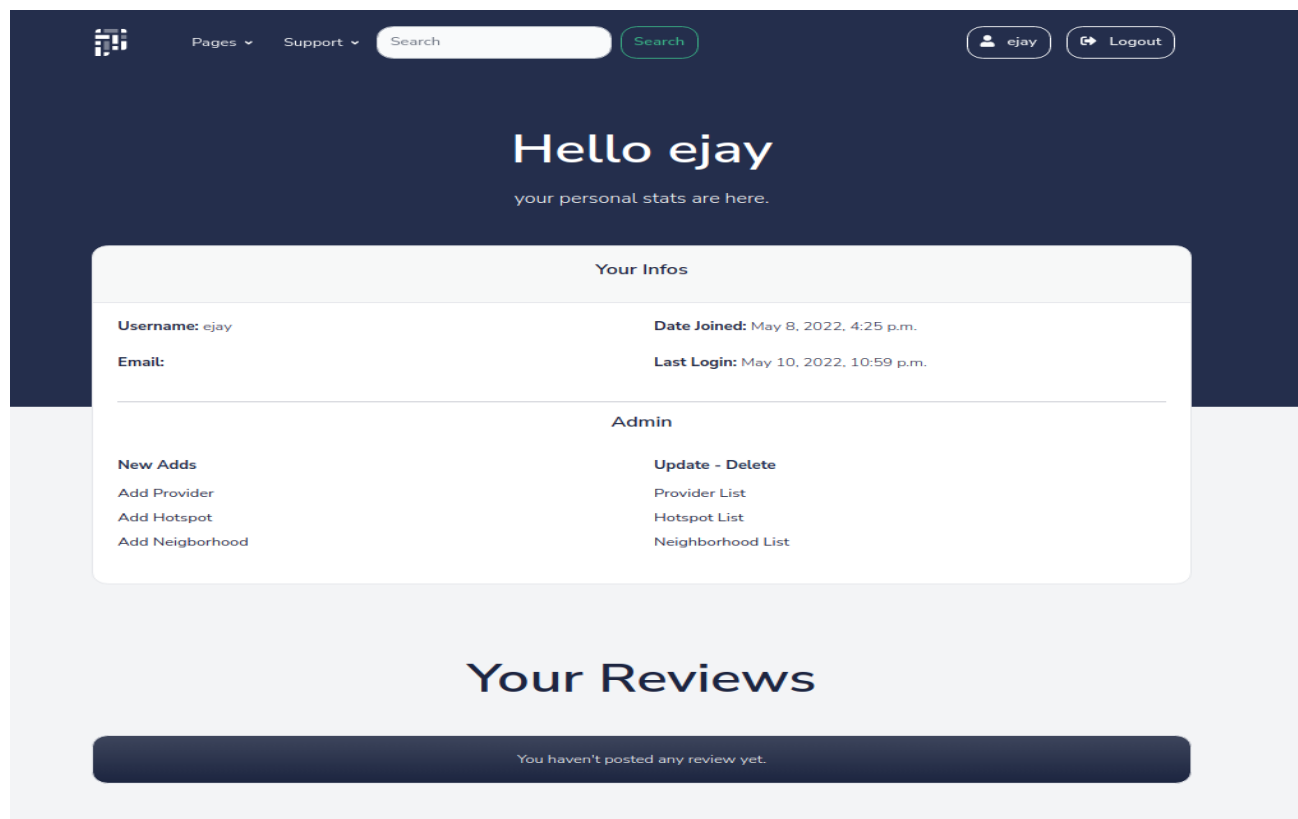


Figure 8: Tools that admin can seer

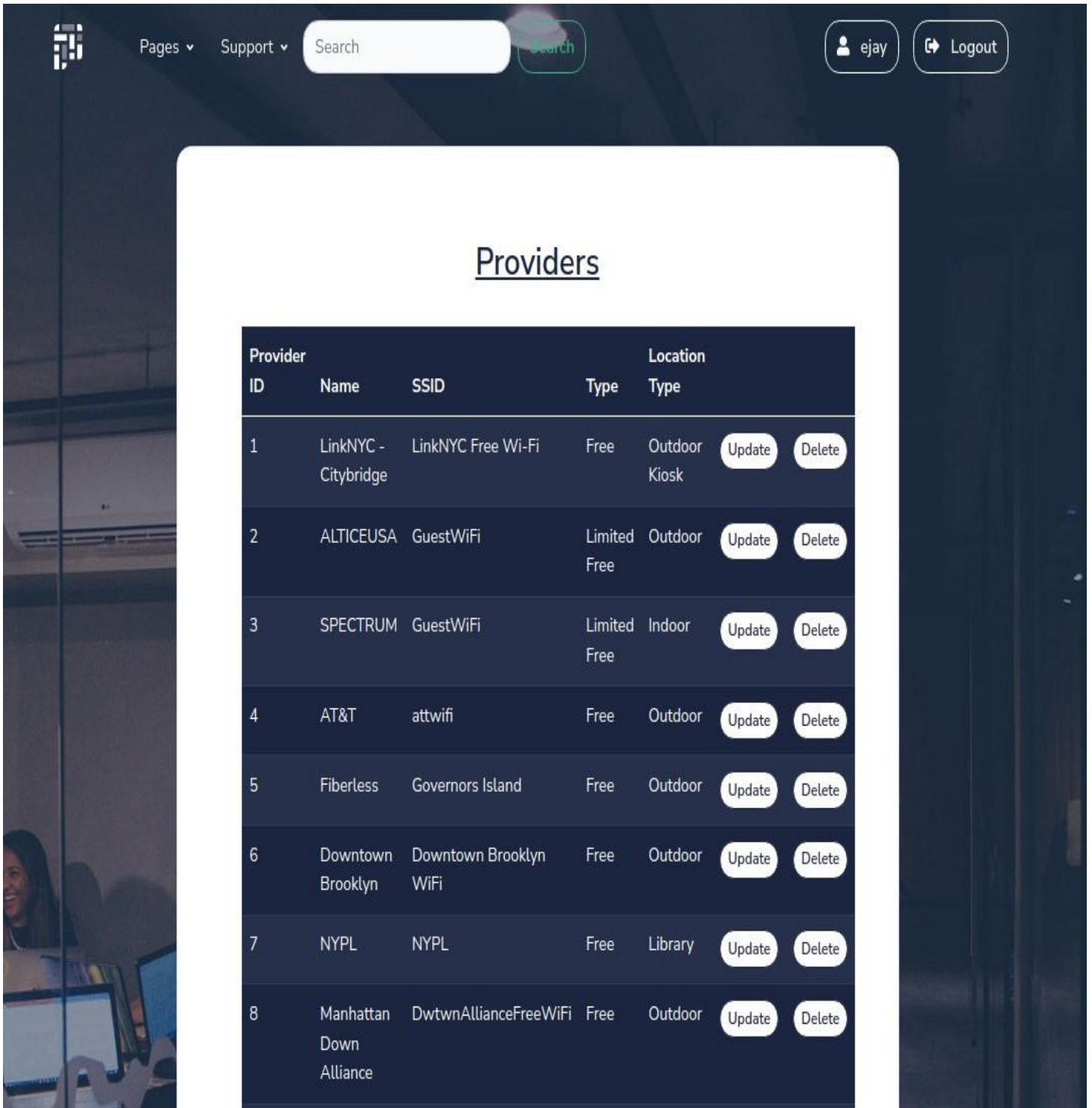
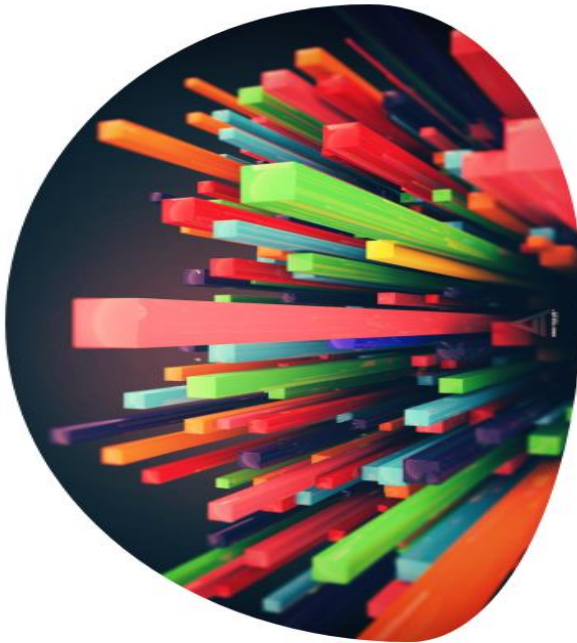


Figure 9: Update/Delete function of the software

[Pages](#) ▾[Support](#) ▾[Search](#)[ejay](#)[Logout](#)

Welcome To Public Square

A place dedicated to the public hotspots around our beautiful city.

[What we do](#) ▾

What is public square?

Using existing payphone infrastructure, the City of New York has teamed up with private partners to provide free Wi-Fi service at public payphone kiosks across the five boroughs at no cost to taxpayers.

Public Square serves as a place for you to search for NYC's public hotspots wifi around you or anywhere in the city. You can see check all sort of informations about a specific hotspots. Check out what previuos users think. You can also leave your review.

Public Square is basically a sort of Yelp but just for New York City public wifi hotspots.



Wifi Hotspots

3500



Providers

12



Boroughs

5



Figure 10: Homepage of the website

VI. ABOUT GITHUB REPOSITORY

https://thawing-beach-00824.herokuapp.com/hotspot_reviews/9852/
https://github.com/j2kb-gs/336_Project_2