

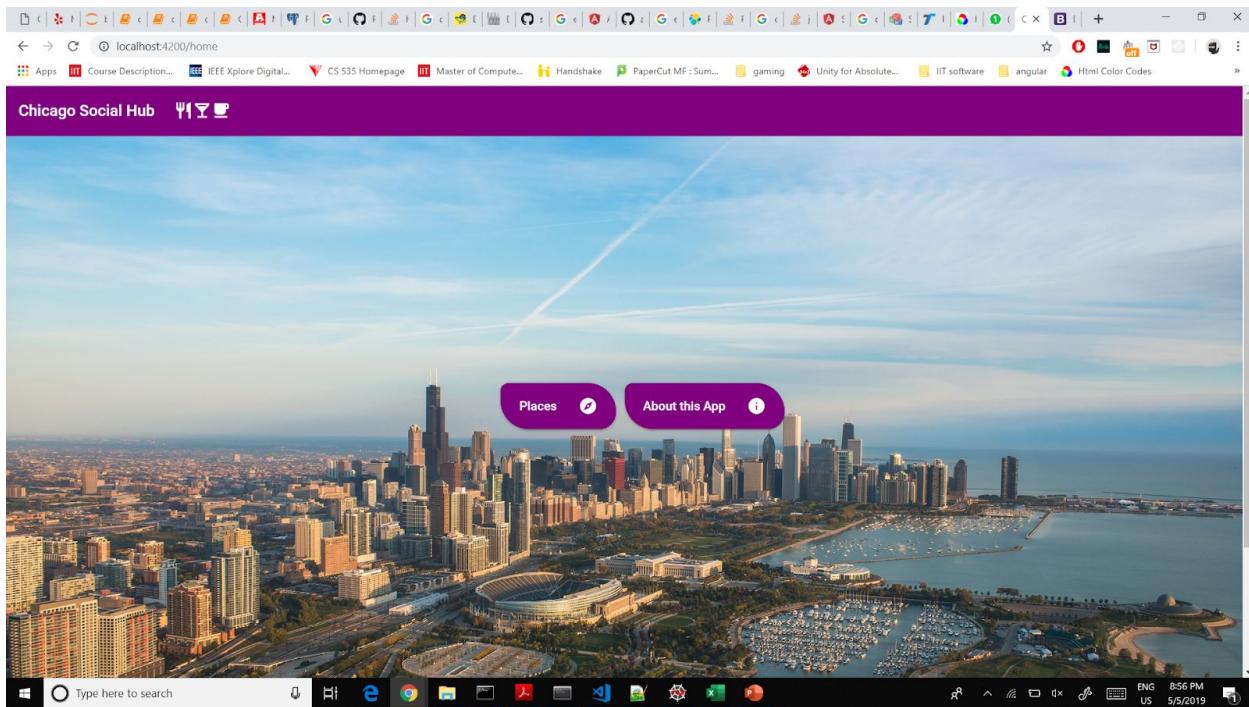
## OUTPUT

**1 This is the home page of our application**

**There are two buttons-**

**Places - To search for places by Street name and/or Zipcode**

**About this app**



**2 When you click on the “About this app” button, you will be redirected to a page that enlists the features of our project**

**Feature**

Post by Alisha, May 3, 2019.  
Search for places on a street and show divvy nearest dock stations for a selected place. And a Dashboard to show the daily and hourly average numbers of available docks for every dock station based on the user selection for the past week, month, and year; divvy data log stored on ElasticSearch server.

**Requirements**

Post by Alisha, May 3, 2019.

- Search for places on a street or by zipcode or by both street and zipcode
- Display nearby dock stations
- Accesses 'ElasticSearch server' and Divvy API
- Divvy API - to show the daily and hourly average numbers of available docks for every dock station based on the user selection for the past week, month, and year;
- Show divvy nearest dock stations for a selected place (using Postman)
- Divvy Data Log - to store the daily and hourly average numbers of available docks for every dock station based on the user selection for the past week, month, and year;
- The application will alert users via email if there are more than 90% usage
- Divvy alerts from Postman from those dockstations that are more than 90% full

**Phase 2 - Additional Requirements**

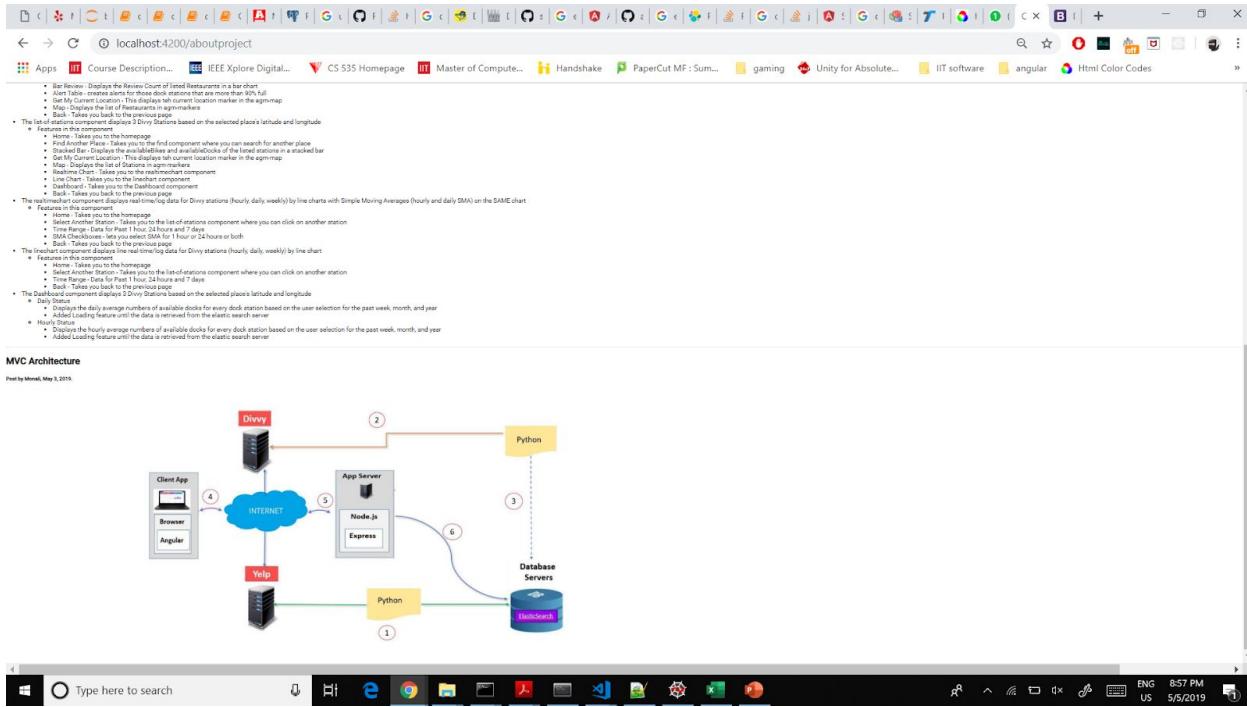
Post by Alisha, May 3, 2019.

- Detects user's current location
- Display nearest dock stations to be sorted based on ratings and review counts
- Divvy Dashboard to show the daily and hourly average numbers of available docks for every dock station based on the user selection for the past week, month, and year
- The application will alert users via email if there are more than 90% usage
- Create alerts from Postman from those dockstations that are more than 90% full

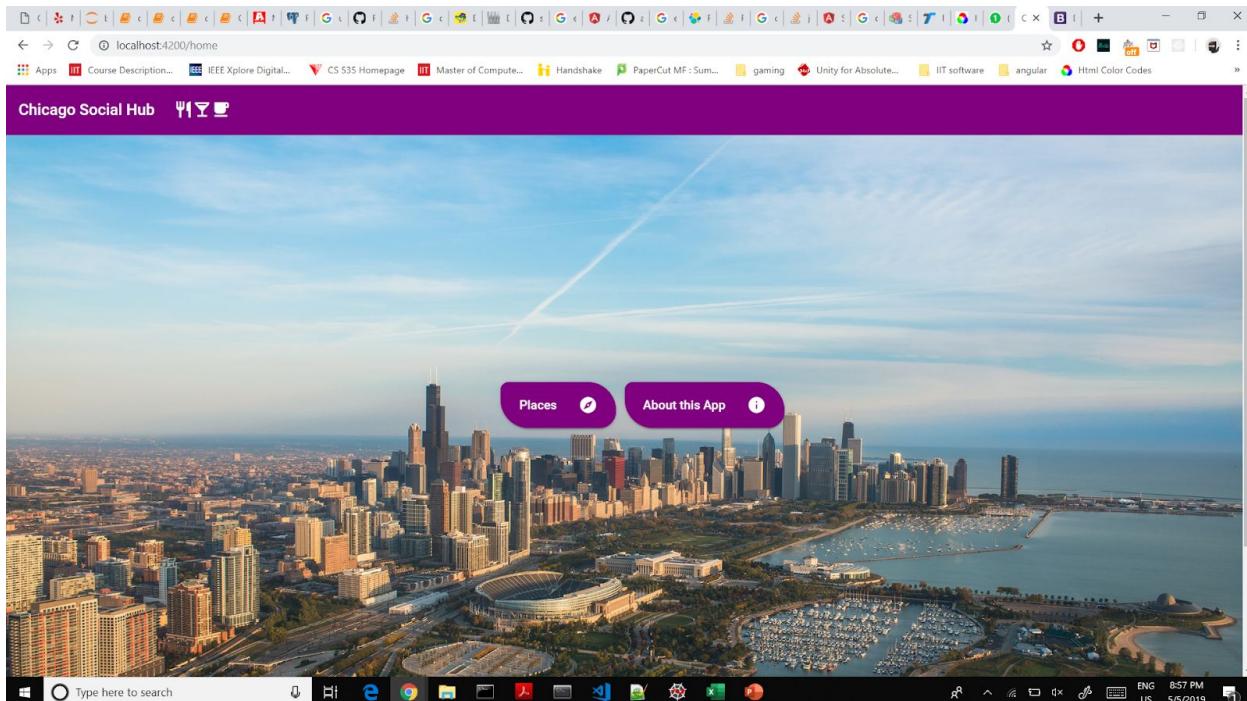
**Navigation**

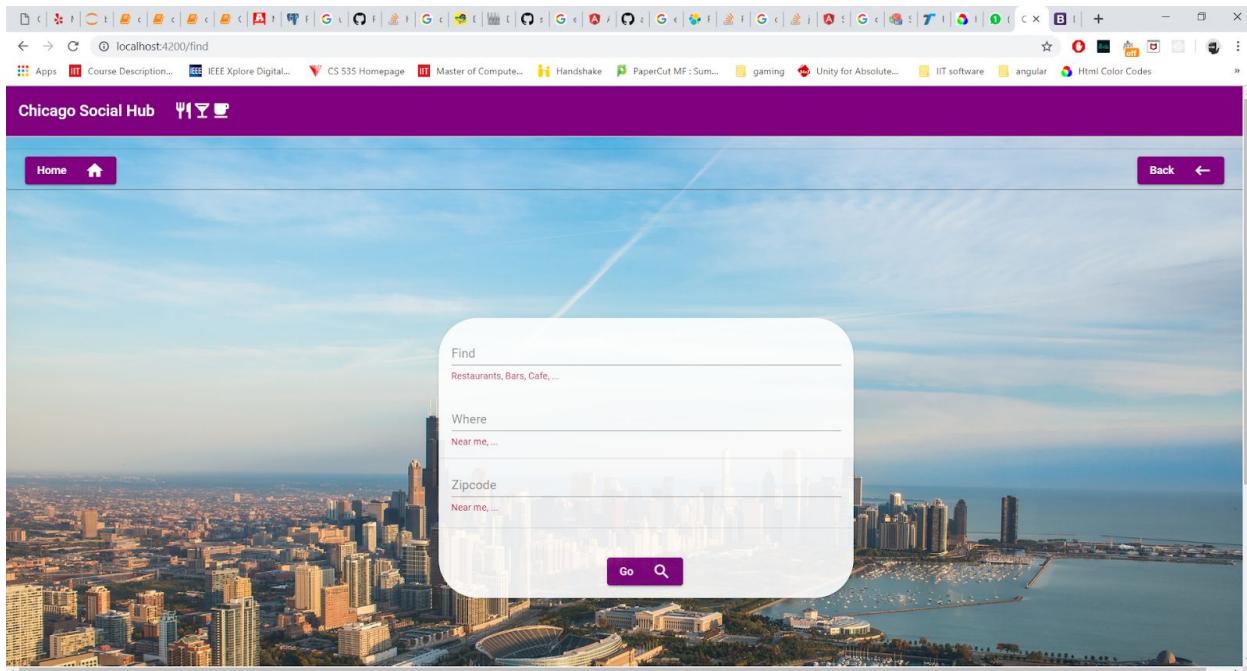
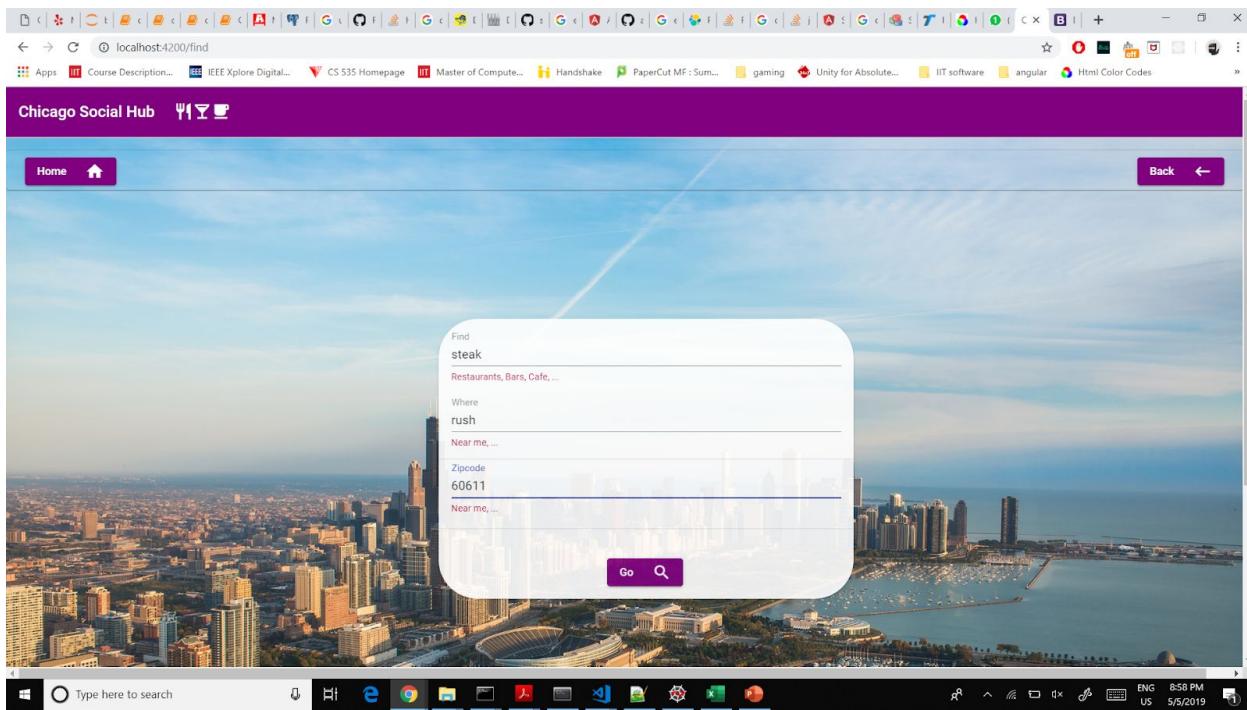
Post by Alisha, May 3, 2019.

- The application is hosted on <http://localhost:4200>.
- There are two Buttons
  - Places - To search for places by Street name And/Or Zipcode
  - About this App - To find information about the application
- This application can be used to find components:
  - Search for places - Mandatory Field
  - Search for restaurants
  - Search by Zipcode
  - Search by Rating
- The list of places component displays all the list of places based on the elastic search query
  - Home - Takes you to the homepage
  - Find Another Place - Takes you to the find component where you can search for another place
  - List of Restaurants - Displays the list of listed Restaurants in the database
  - Map - Takes you to the map component where you can search for a place in the map
  - Line Chart - Displays the list of Stations in a graph
  - Dashboard - Takes you to the dashboard component
  - Dashboard - Takes you to the dashboard component
- The list-of-stations component displays 3 Divvy Stations based on the selected place's latitude and longitude
  - Home - Takes you to the homepage
  - Find Another Place - Takes you to the find component where you can search for another place
  - Starred Bar - Displays the availability and availability of the listed stations in a stacked bar chart
  - Map - Displays the list of Stations in a graph
  - Line Chart - Takes you to the linechart component
  - Dashboard - Takes you to the dashboard component



### 3 When you click on the “Home” button on the ‘about project’ page, you will be redirected on the home page of the application



**5 When you click on the “Places” button, you will be redirected to the ‘find’ page****6 Enter the place name, street name and zipcode here and click on the “Go” button**

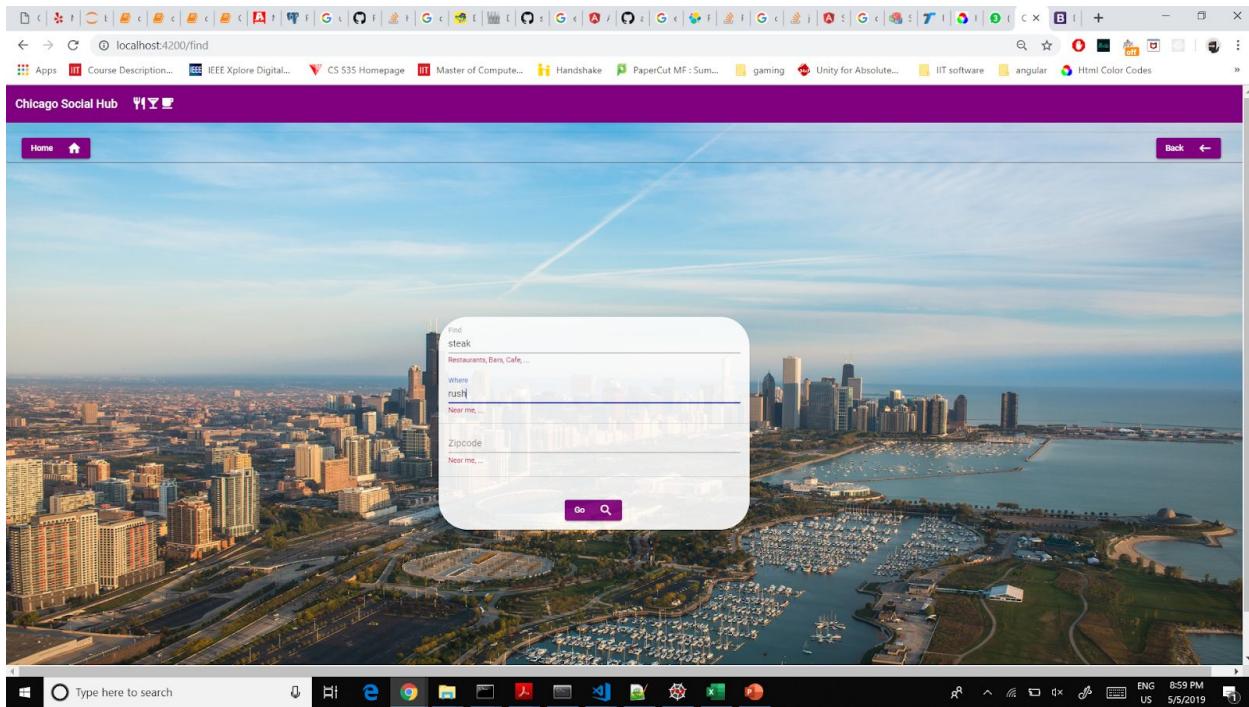
## 7 When you click on the “Go” button, a list of restaurants is displayed

Screenshot of a web browser showing the "Chicago Social Hub" application. The page displays a list of restaurants with their details and a "Divvy Near by" button. Below the list is a map of Chicago with a blue circle indicating the search radius.

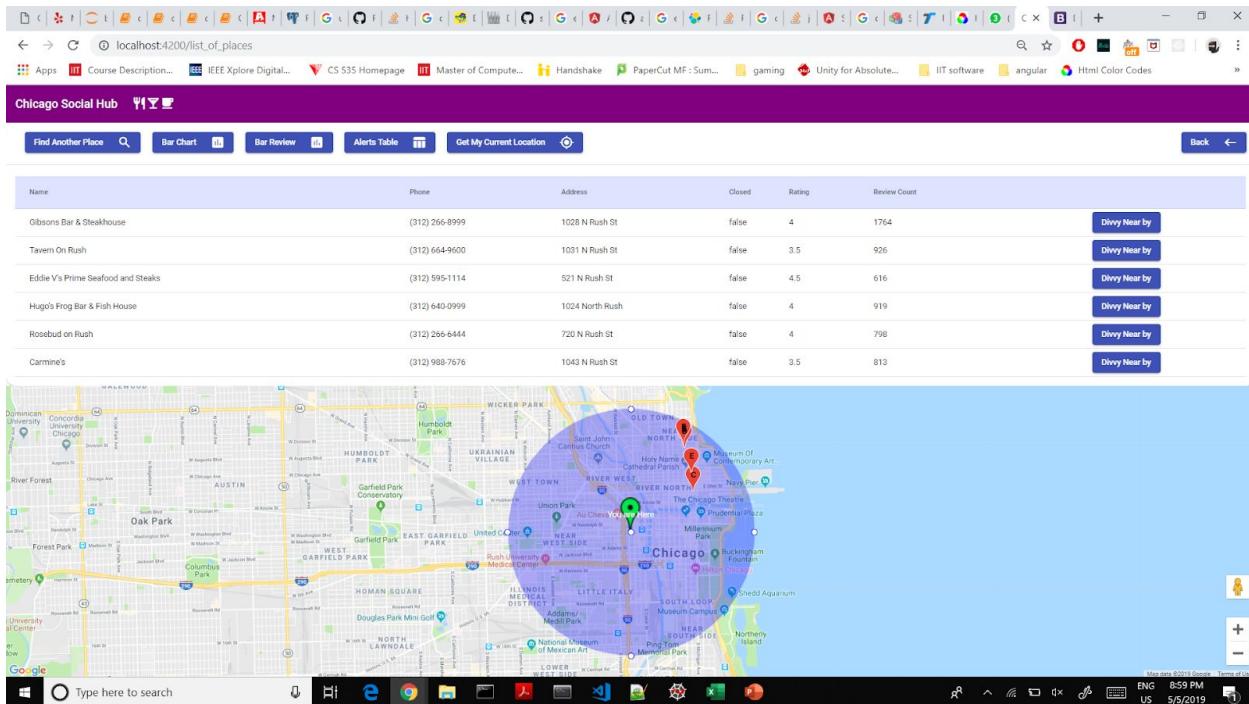
Name	Phone	Address	Closed	Rating	Review Count
Difesa's Restaurant	(312) 587-8909	100 E Chestnut St	false	4	910
Joe's Seafood, Prime Steak & Stone Crab	(312) 379-5637	60 E Grand Ave	false	4.5	2233
Gibson's Bar & Steakhouse	(312) 266-8999	1028 N Rush St	false	4	1764
Michael Jordan's Steak House	(312) 321-8823	505 N Michigan Ave	false	4	918
Benny's Chop House	(312) 626-2444	444 N Wabash Ave	false	4	587
Bistronomic	(312) 944-8400	840 N Wabash Ave	false	4	536
The Capital Grille	(312) 337-9400	633 N Saint Clair St	false	4.5	744
Fleming's Prime Steakhouse & Wine Bar - Chicago	(312) 329-9463	25 E Ohio St	false	4	525
Lawry's The Prime Rib	(312) 787-5000	100 E Ontario St	false	4	741
Tavern On Rush	(312) 664-9600	1031 N Rush St	false	3.5	926
Eddie V's Prime Seafood and Steaks	(312) 595-1114	521 N Rush St	false	4.5	616
Hugo's Frog Bar & Fish House	(312) 640-0999	1024 North Rush	false	4	919
RL Restaurant	(312) 475-1100	115 E Chicago Ave	false	4	697
Rosebud on Rush	(312) 266-6444	720 N Rush St	false	4	798
Carmine's	(312) 988-7676	1043 N Rush St	false	3.5	813

Map of Chicago showing the search results. A blue circle indicates the search radius centered around the user's current location (indicated by a green dot). Numerous red dots represent the locations of the listed restaurants.

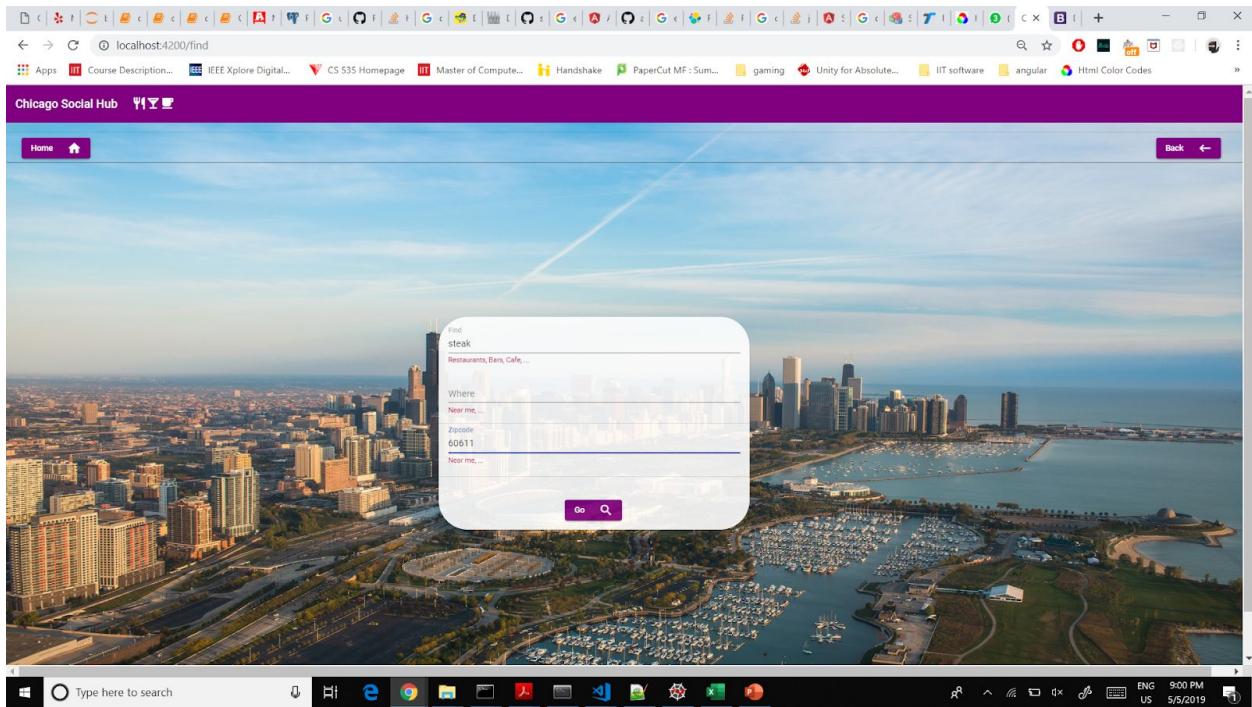
**8 On the ‘find’ page, you can also enter place name and street name only to look up for restaurants as follows:**



**9 This is the search result for list of places with place name and street name.**



**10** On the ‘find’ page, you can also enter place name and zipcode only to look up for restaurants as follows:



**11** This is the search result for list of places with place name and zipcode.

Name	Phone	Address	Closed	Rating	Review Count	
Dirk's Restaurant	(312) 587-8989	100 E Chestnut St	false	4	910	<a href="#">Divvy Near by</a>
Joe's Seafood, Prime Steak & Stone Crab	(312) 379-5637	60 E Grand Ave	false	4.5	2233	<a href="#">Divvy Near by</a>
Gibson's Bar & Steakhouse	(312) 266-9999	1028 N Rush St	false	4	1764	<a href="#">Divvy Near by</a>
Michael Jordan's Steak House	(312) 321-8823	905 S Michigan Ave	false	4	918	<a href="#">Divvy Near by</a>
Benny's Chop House	(312) 626-2444	444 N Wabash Ave	false	4	587	<a href="#">Divvy Near by</a>
Bistroematic	(312) 944-8400	840 N Wabash Ave	false	4	536	<a href="#">Divvy Near by</a>
The Capital Grille	(312) 337-9400	633 N Saint Clair St	false	4.5	744	<a href="#">Divvy Near by</a>
Fleming's Prime Steakhouse & Wine Bar - Chicago	(312) 259-4463	25 E Ohio St	false	4	525	<a href="#">Divvy Near by</a>
Lawry's The Prime Rib	(312) 787-9000	100 E Ontario St	false	4	741	<a href="#">Divvy Near by</a>
Tavern On Rush	(312) 664-9600	1031 N Rush St	false	3.5	926	<a href="#">Divvy Near by</a>
Eddie V's Prime Seafood and Steaks	(312) 599-1114	921 N Rush St	false	4.5	616	<a href="#">Divvy Near by</a>
Hugo's Frog Bar & Fish House	(312) 640-0999	1024 North Rush	false	4	919	<a href="#">Divvy Near by</a>
RL Restaurant	(312) 797-1100	115 E Chicago Ave	false	4	697	<a href="#">Divvy Near by</a>
Rosebud on Rush	(312) 266-6444	720 N Rush St	false	4	798	<a href="#">Divvy Near by</a>
Camino's	(312) 988-7676	1043 N Rush St	false	3.5	813	<a href="#">Divvy Near by</a>

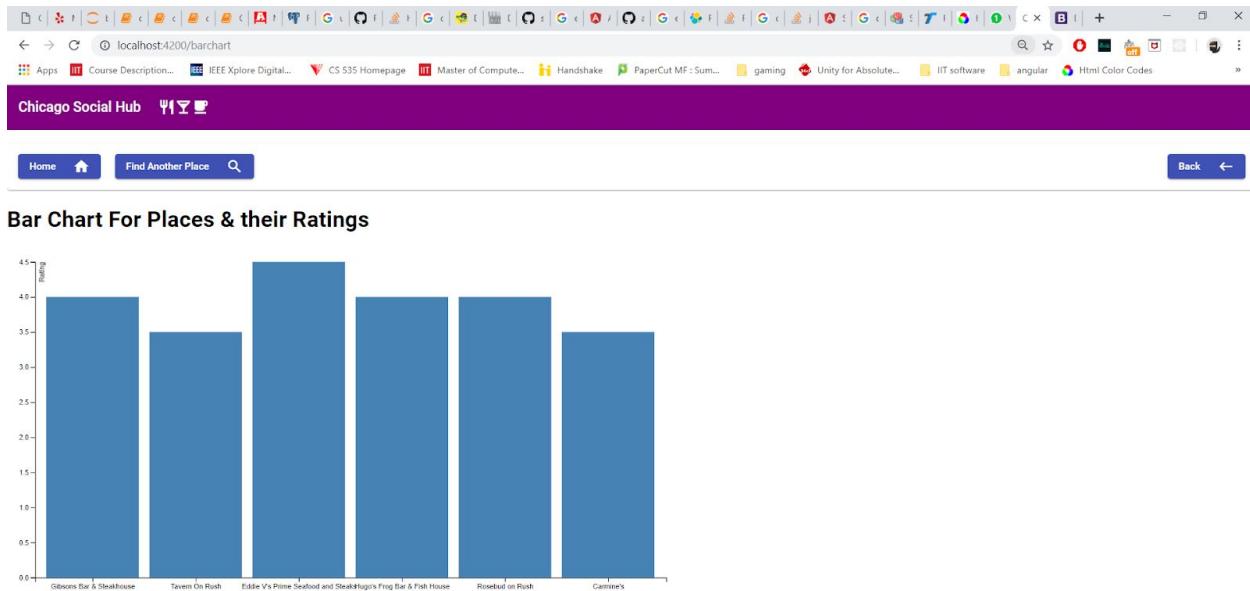
The screenshot shows a web application titled "Chicago Social Hub". At the top, there is a navigation bar with links for "Find Another Place", "Bar Chart", "Bar Review", "Alerts Table", and "Get My Current Location". Below the navigation bar is a table listing five restaurants:

Name	Phone	Address	Closed	Rating	Review Count
Gibson's Bar & Steakhouse	(312) 266-8999	1028 N Rush St	false	4	1764
Tavern On Rush	(312) 664-9600	1031 N Rush St	false	3.5	926
Eddie V's Prime Seafood and Steaks	(312) 595-1114	521 N Rush St	false	4.5	615
Hugo's Frog Bar & Fish House	(312) 640-0999	1024 North Rush	false	4	919
Rosebud on Rush	(312) 266-6444	720 N Rush St	false	4	798
Carmine's	(312) 998-7678	1043 N Rush St	false	3.5	813

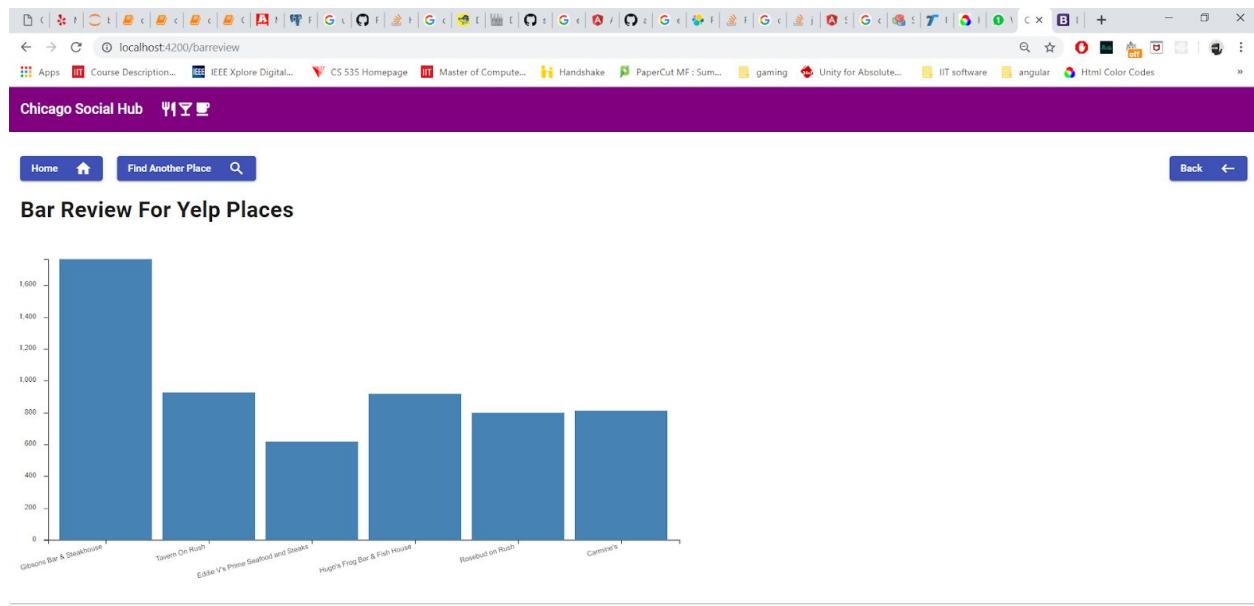
Below the table is a map of Chicago with a large blue circle centered on the city, indicating a search radius or area of interest. The map shows various neighborhoods and landmarks.



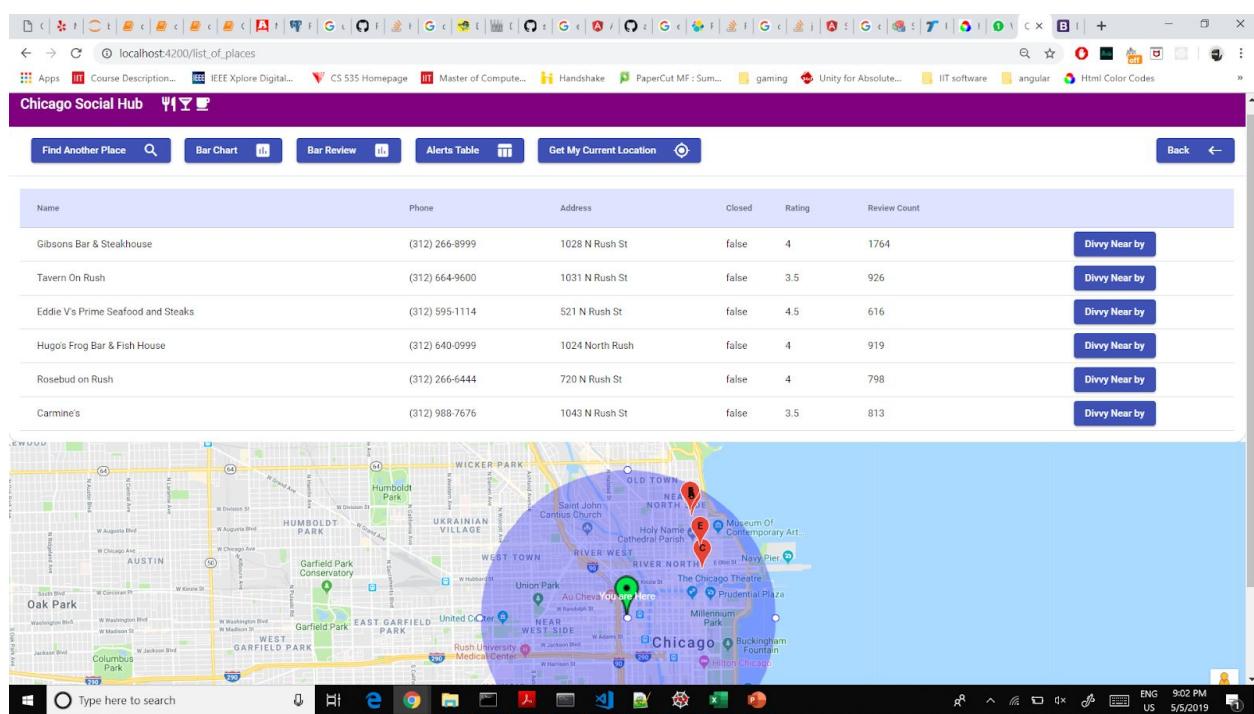
## 12 When you click on the “Bar Chart” button, you can view the plot of restaurants v/s ratings



**14 When you click on the “Bar Review” button, you can view the plot of Restaurants v/s reviews**



**15 BEFORE clicking “Get My Current Location” button, Union Station is displayed as your location**



**16 AFTER clicking “Get My Current Location” button, your actual location is displayed**

The screenshot shows a web application titled "Chicago Social Hub". At the top, there are several navigation buttons: "Find Another Place" (with a magnifying glass icon), "Bar Chart" (with a bar chart icon), "Bar Review" (with a review icon), "Alerts Table" (with a table icon), and "Get My Current Location" (with a location pin icon). Below these buttons is a table listing five bars with their names, phone numbers, addresses, closed status, ratings, and review counts. Each row has a blue "Divvy Near by" button. Below the table is a map of Chicago and surrounding suburbs. A red dot on the map indicates the user's current location, which is also labeled "You are here" with a green circle and a purple shaded area representing a radius.

Name	Phone	Address	Closed	Rating	Review Count	Action
Gibson's Bar & Steakhouse	(312) 266-8999	1028 N Rush St	false	4	1764	<a href="#">Divvy Near by</a>
Tavern On Rush	(312) 664-9600	1031 N Rush St	false	3.5	926	<a href="#">Divvy Near by</a>
Eddie Vs Prime Seafood and Steaks	(312) 595-1114	521 N Rush St	false	4.5	616	<a href="#">Divvy Near by</a>
Hugo's Frog Bar & Fish House	(312) 640-0999	1024 North Rush	false	4	919	<a href="#">Divvy Near by</a>
Rosebud on Rush	(312) 266-6444	720 N Rush St	false	4	798	<a href="#">Divvy Near by</a>
Carmine's	(312) 988-7676	1043 N Rush St	false	3.5	813	<a href="#">Divvy Near by</a>

**17 When you click on “Alerts Table” button, you can see the dock stations highlighted in Redwhich depict the dock stations that are more than 90% full**

The screenshot shows a web application titled "Chicago Social Hub". At the top, there is a "Home" button and a "Back" button. Below the header is a table with columns: Station ID, Station Name, Available Bikes, Available Docks, Total Docks, Occupancy, Is Renting, and Status. The table lists ten dock stations. Rows 43 and 39 are highlighted in red, indicating they are more than 90% full. The rest of the rows are in a standard grey color.

Station ID	Station Name	Available Bikes	Available Docks	Total Docks	Occupancy	Is Renting	Status
197	Michigan Ave & Madison St	15	4	19	78.95%	true	IN_SERVICE
43	Michigan Ave & Washington St	41	2	43	95.35%	true	IN_SERVICE
39	Wabash Ave & Adams St	14	9	23	60.87%	true	IN_SERVICE
172	Rush St & Cedar St	9	2	11	81.82%	true	IN_SERVICE
47	State St & Kinzie St	12	19	31	38.71%	true	IN_SERVICE
44	State St & Randolph St	10	17	27	37.04%	true	IN_SERVICE
161	Rush St & Superior St	6	17	23	26.09%	true	IN_SERVICE
194	Wabash Ave & Wacker Pl	0	19	19	0.00%	true	IN_SERVICE
125	Rush St & Hubbard St	8	15	23	34.78%	true	IN_SERVICE
106	State St & Pearson St	0	27	27	0.00%	true	IN_SERVICE



## 18 This is the list of places sorted on the basis of rating

Name	Phone	Address	Closed	Rating ↑	Review Count	
Gibsons Bar & Steakhouse	(312) 266-8999	1028 N Rush St	false	4	1764	<a href="#">Divvy Near by</a>
Tavern On Rush	(312) 664-9600	1031 N Rush St	false	3.5	926	<a href="#">Divvy Near by</a>
Eddie Vs Prime Seafood and Steaks	(312) 595-1114	521 N Rush St	false	4.5	616	<a href="#">Divvy Near by</a>
Hugo's Frog Bar & Fish House	(312) 640-0999	1024 North Rush	false	4	919	<a href="#">Divvy Near by</a>
Rosebud on Rush	(312) 266-6444	720 N Rush St	false	4	798	<a href="#">Divvy Near by</a>
Carmine's	(312) 988-7676	1043 N Rush St	false	3.5	813	<a href="#">Divvy Near by</a>

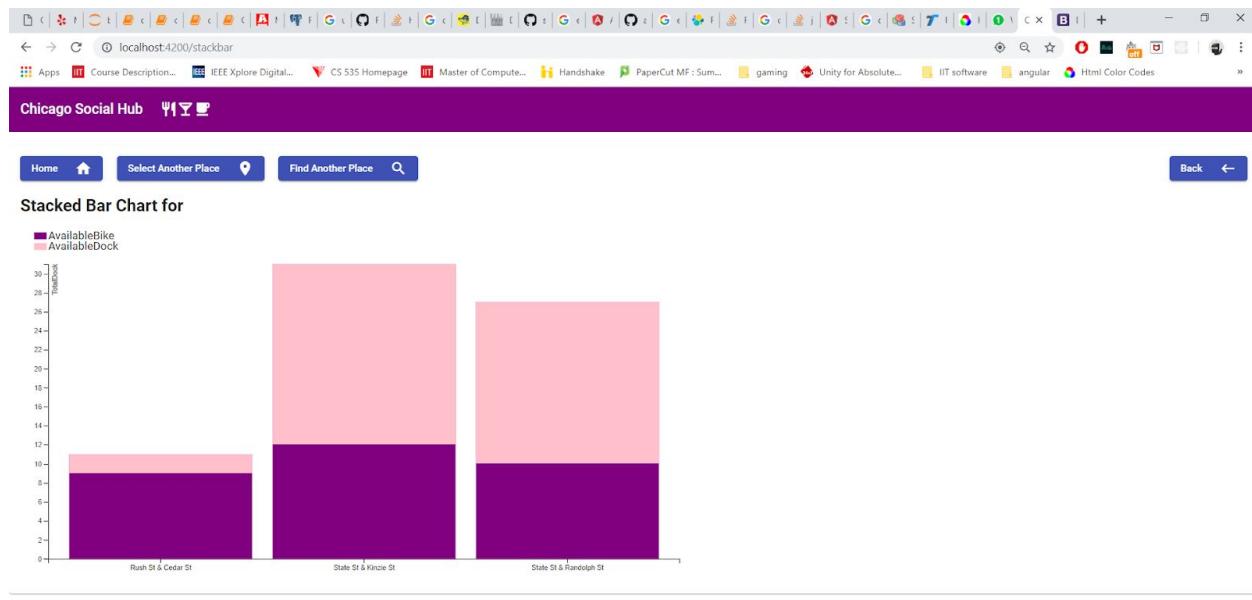
## 19 This is the list of places sorted on the basis of review counts

Name	Phone	Address	Closed	Rating	Review Count ↑	
Gibsons Bar & Steakhouse	(312) 266-8999	1028 N Rush St	false	4	1764	<a href="#">Divvy Near by</a>
Tavern On Rush	(312) 664-9600	1031 N Rush St	false	3.5	926	<a href="#">Divvy Near by</a>
Eddie Vs Prime Seafood and Steaks	(312) 595-1114	521 N Rush St	false	4.5	616	<a href="#">Divvy Near by</a>
Hugo's Frog Bar & Fish House	(312) 640-0999	1024 North Rush	false	4	919	<a href="#">Divvy Near by</a>
Rosebud on Rush	(312) 266-6444	720 N Rush St	false	4	798	<a href="#">Divvy Near by</a>
Carmine's	(312) 988-7676	1043 N Rush St	false	3.5	813	<a href="#">Divvy Near by</a>

**20 When you click on “Divvy Near By” button for a restaurant, you can see the list of 3 nearest Divvy stations with respect to a particular restaurant**

ID	stationName	availableBikes	availableDocks	is_renting	lastCommunicationTime	latitude	longitude	status	totalDocks	RealTimeChart	Line Chart	Dashboard
172	Rush St & Cedar St	9	2	true	2019-04-06, 5:55:01 pm	41.90230870122	-87.627690528	IN_SERVICE	11	<a href="#">RealTimeChart</a>	<a href="#">Line Chart</a>	<a href="#">Dashboard</a>
47	State St & Kinzie St	12	19	true	2019-04-06, 5:55:00 pm	41.889187	-87.627754	IN_SERVICE	31	<a href="#">RealTimeChart</a>	<a href="#">Line Chart</a>	<a href="#">Dashboard</a>
44	State St & Randolph St	10	17	true	2019-04-06, 5:56:21 pm	41.8847302006	-87.6277335692	IN_SERVICE	27	<a href="#">RealTimeChart</a>	<a href="#">Line Chart</a>	<a href="#">Dashboard</a>

**21 This is the stacked bar chart for the 3 Divvy stations which shows the available bikes and available docks**



**22 This displays the location as “Union Station” before clicking on the “Get My Current Location” button**

The screenshot shows a web browser window for 'Chicago Social Hub'. At the top, there's a purple header bar with the title 'Chicago Social Hub' and a logo. Below it is a navigation bar with links for 'Home', 'Find Another Place', 'Stacked Bar', 'Get My Current Location', 'RealTimeChart', 'Line Chart', and 'Dashboard'. The main content area has a table listing bike stations:

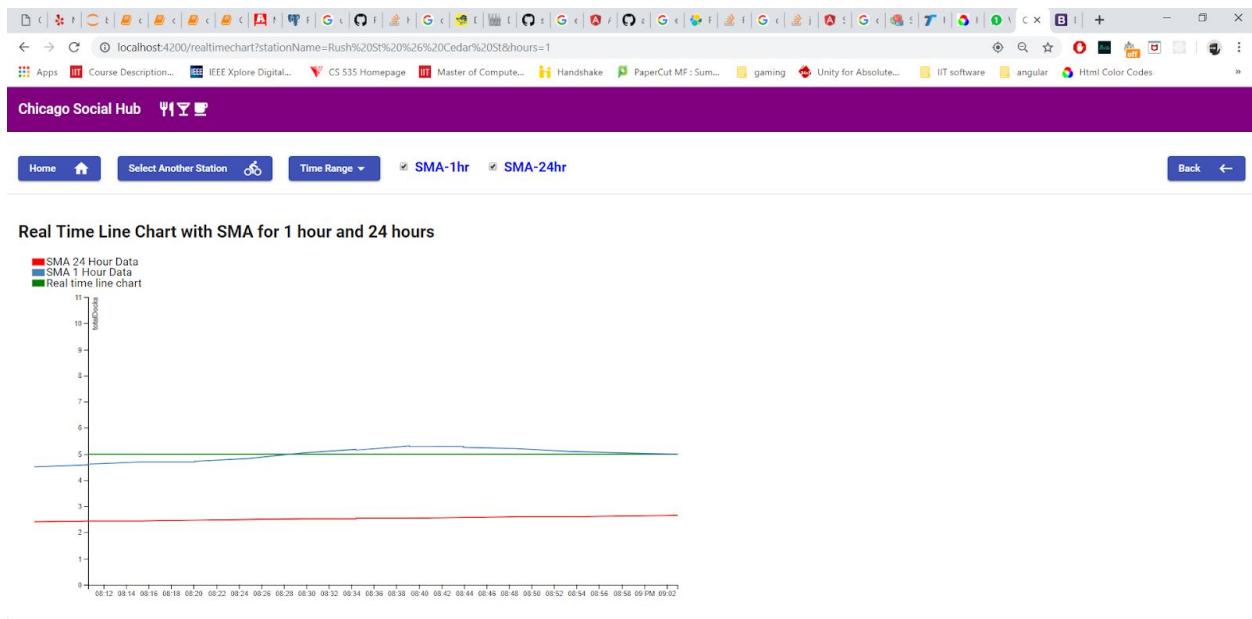
ID	stationName	availableBikes	availableDocks	is_renting	lastCommunicationTime	latitude	longitude	status	totalDecks	RealTimeChart	Line Chart	Dashboard
172	Rush St & Cedar St	9	2	true	2019-04-06, 5:55:01 pm	41.90230870122	-87.627690528	IN_SERVICE	11	<a href="#">RealTimeChart</a>	<a href="#">Line Chart</a>	<a href="#">Dashboard</a>
47	State St & Kinzie St	12	19	true	2019-04-06, 5:55:00 pm	41.889187	-87.627754	IN_SERVICE	31	<a href="#">RealTimeChart</a>	<a href="#">Line Chart</a>	<a href="#">Dashboard</a>
44	State St & Randolph St	10	17	true	2019-04-06, 5:56:21 pm	41.8847302006	-87.6277335692	IN_SERVICE	27	<a href="#">RealTimeChart</a>	<a href="#">Line Chart</a>	<a href="#">Dashboard</a>

Below the table is a map of Chicago with several green dots representing bike stations. A large blue circle is centered over the Loop area, with a red dot indicating the user's current location at approximately (41.889187, -87.627754), which corresponds to Union Station.

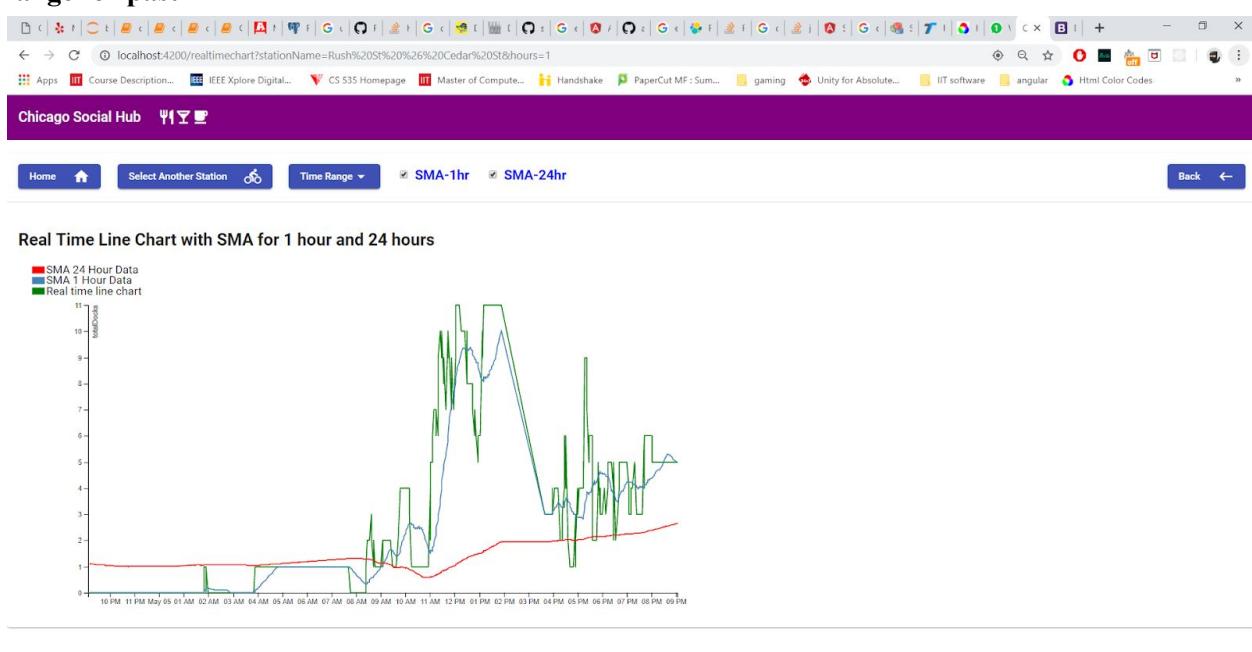
**20 This displays your current location after you click on the “Get My Current Location”**

This screenshot is identical to the one above, showing the same table of bike stations and the same map of Chicago. However, the red dot representing the user's current location has moved to a new location in Chinatown, specifically at approximately (41.889187, -87.627754). The blue circle remains centered over the Loop area.

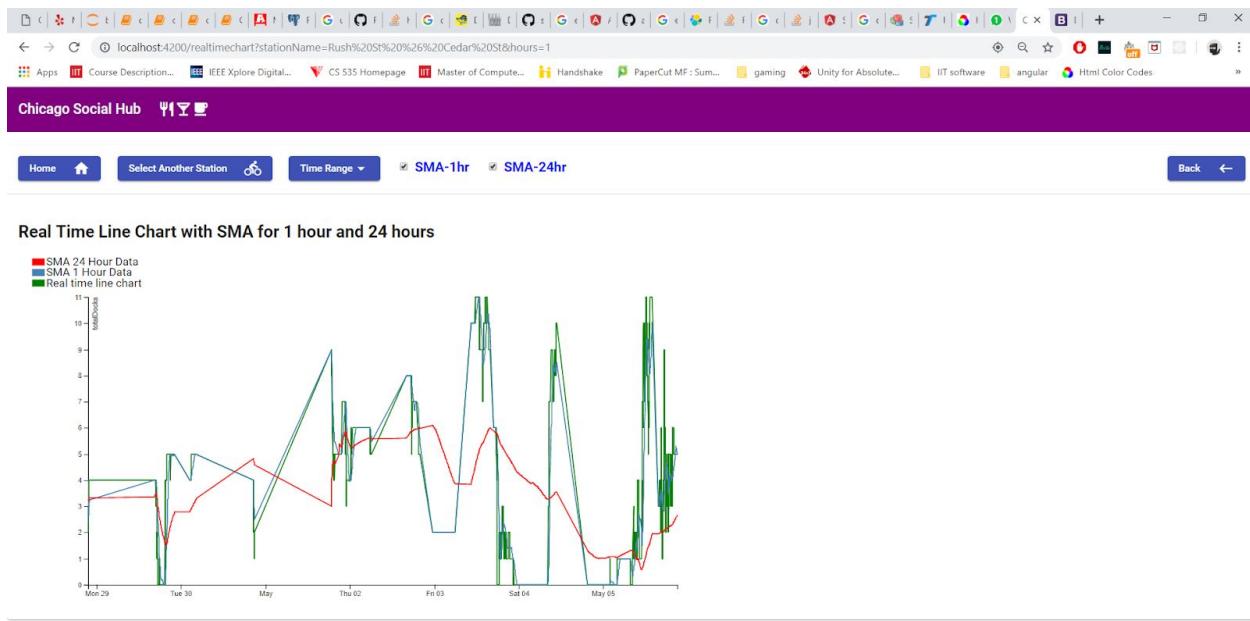
## 21 Real time chart for available docks with line chart and SMA for 1 hr and 34 hr based on time range, by default past 1 hr



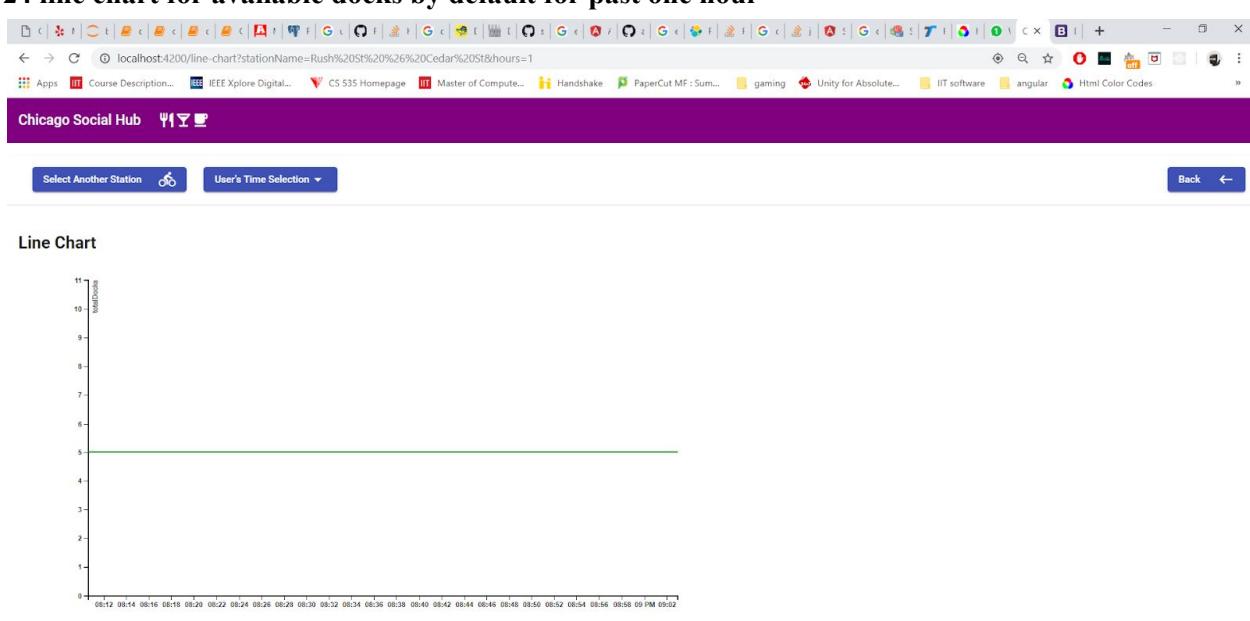
## 22 Real time chart for available docks with line chart and SMA for 1 hr and 34 hr based on time range for past 24 hr

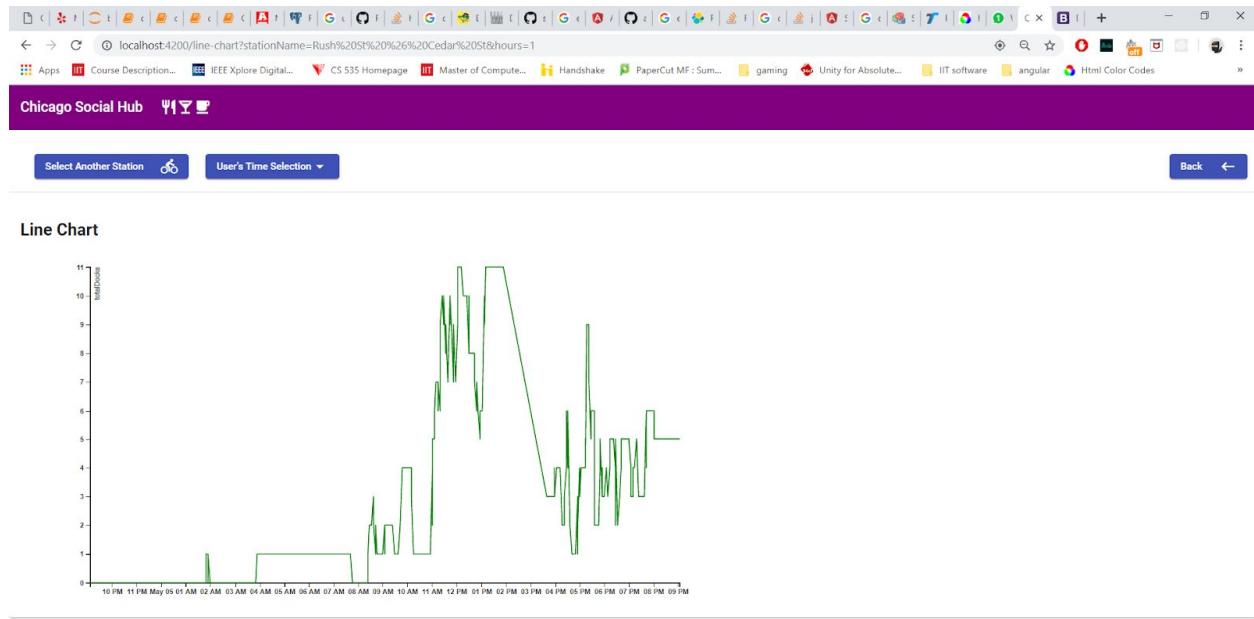
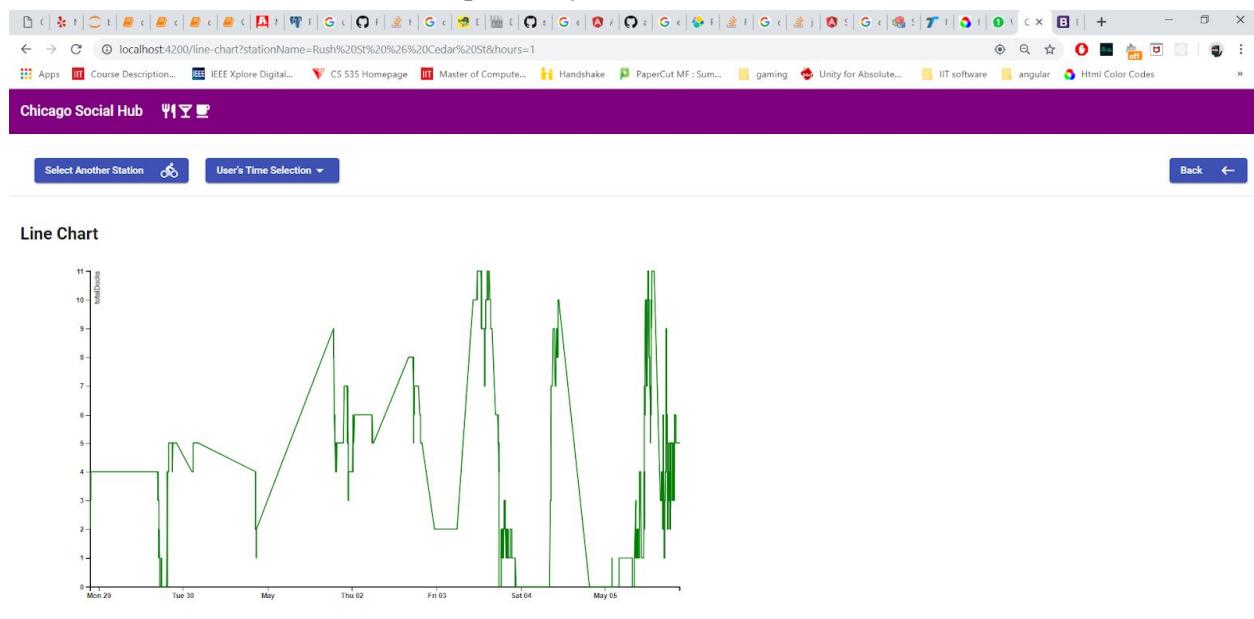


### 23 Real time chart for available docks with line chart and SMA for 1 hr and 34 hr based on time range for past 7 days



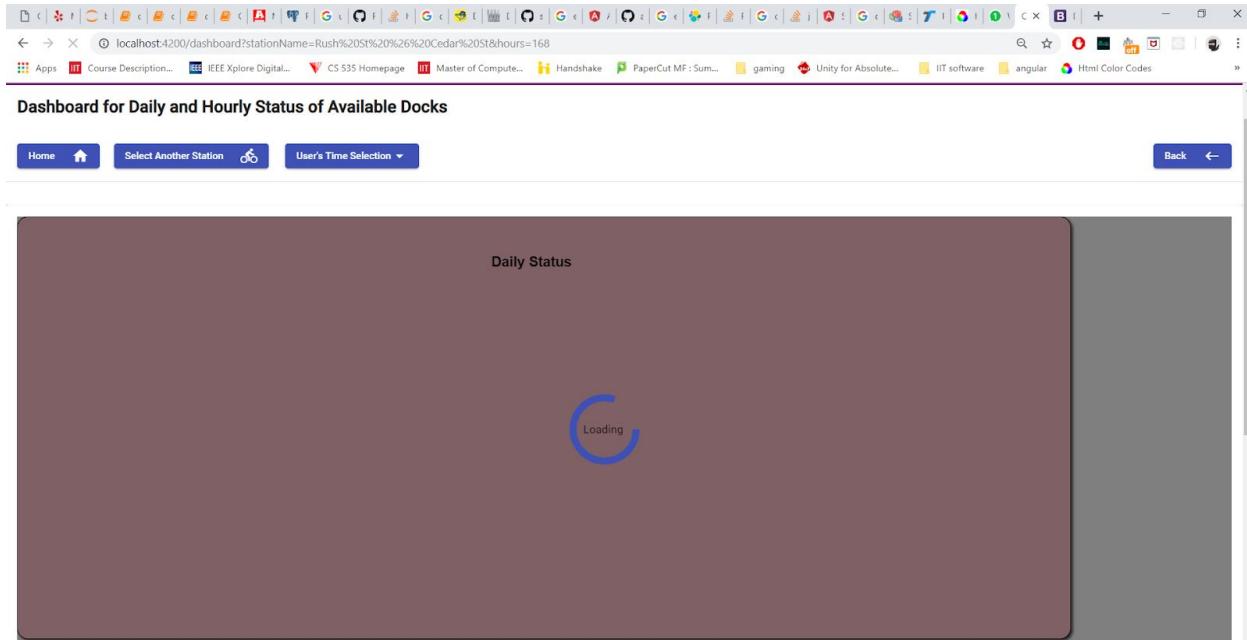
### 24 line chart for available docks by default for past one hour



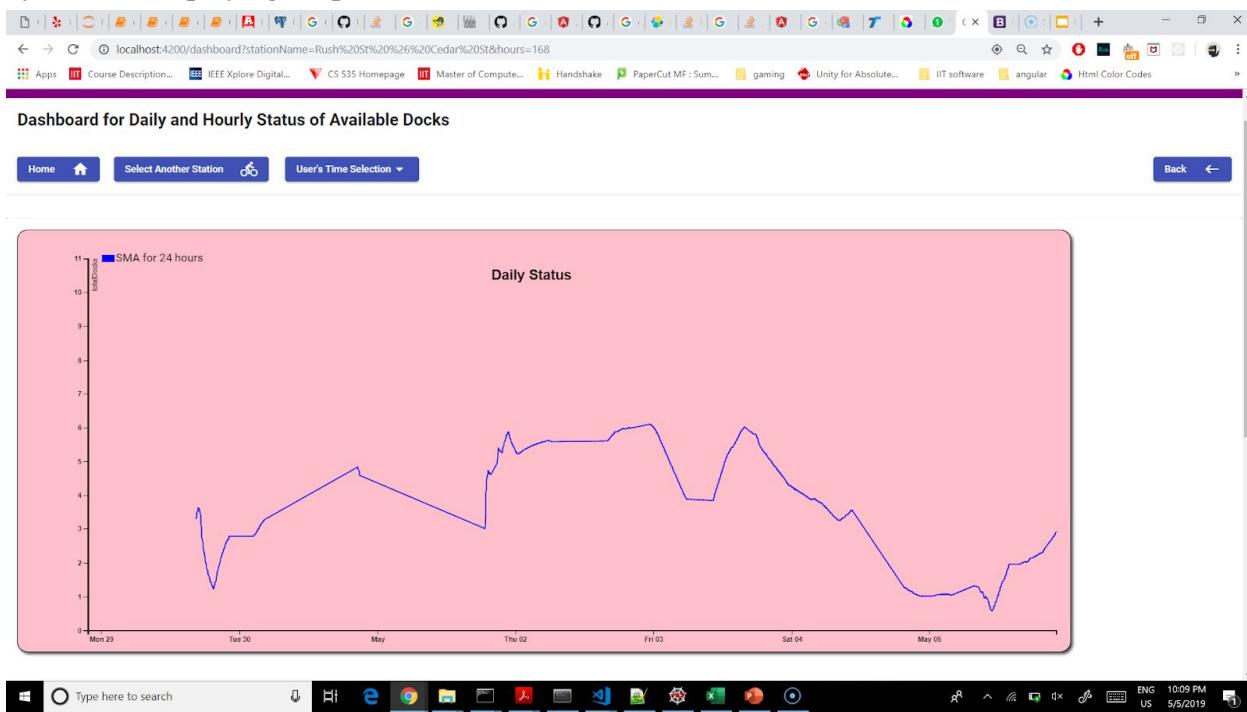
**25 line chart for available docks for past 24 hours****26 line chart for available docks for past 7days**

## 27 Dashboard Displaying Daily status of Available Docks based on Users Time Range for Past week, Past month and Past year

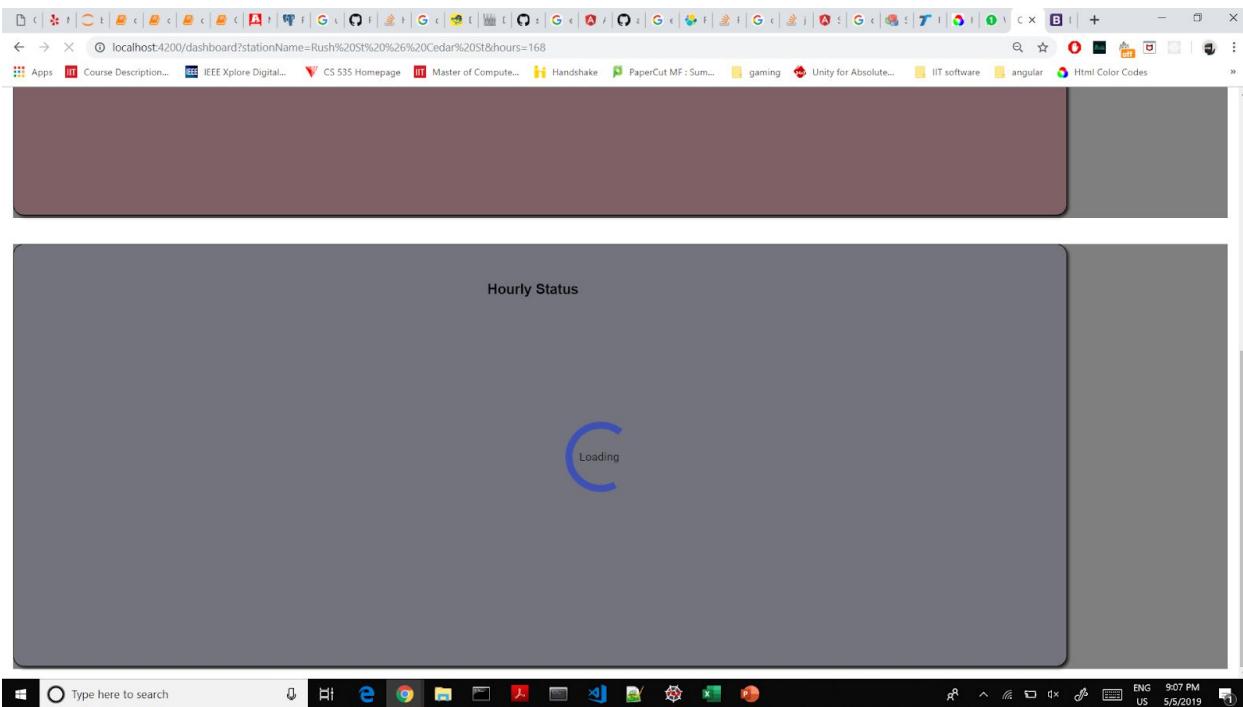
When the data is retrieved, We have used Mat-spinner for loading to show that data is being fetched



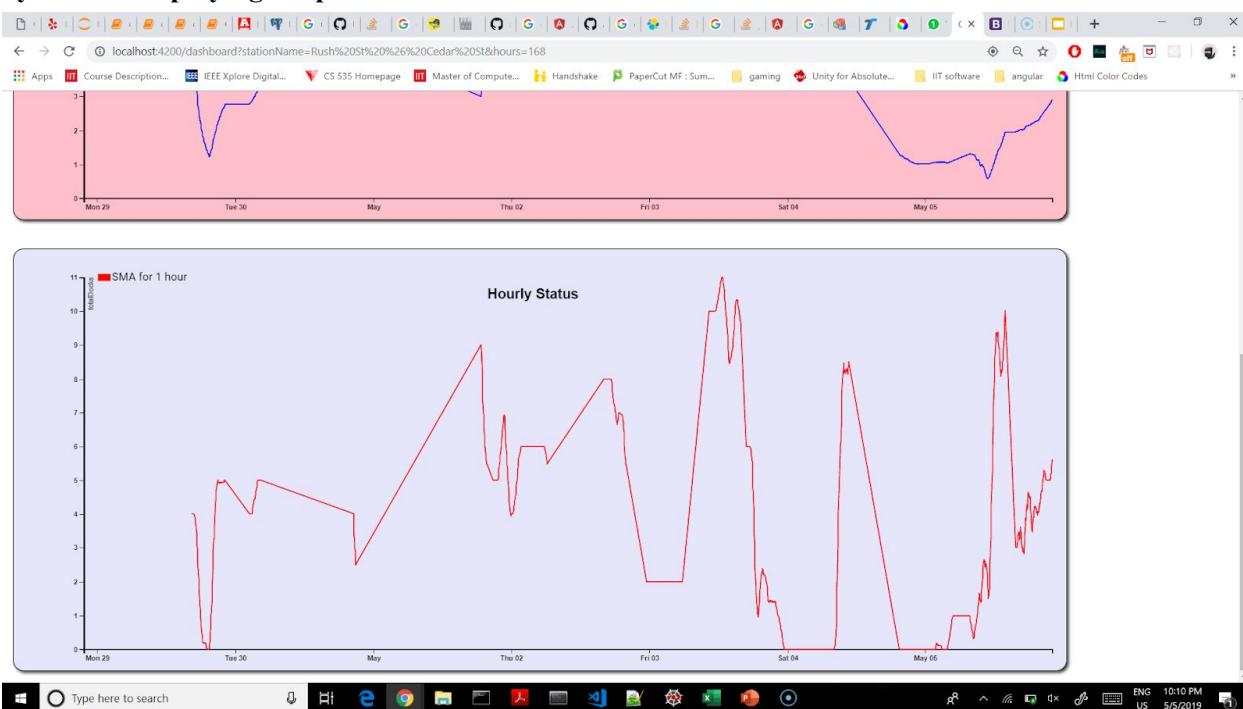
By Default, displaying for past week



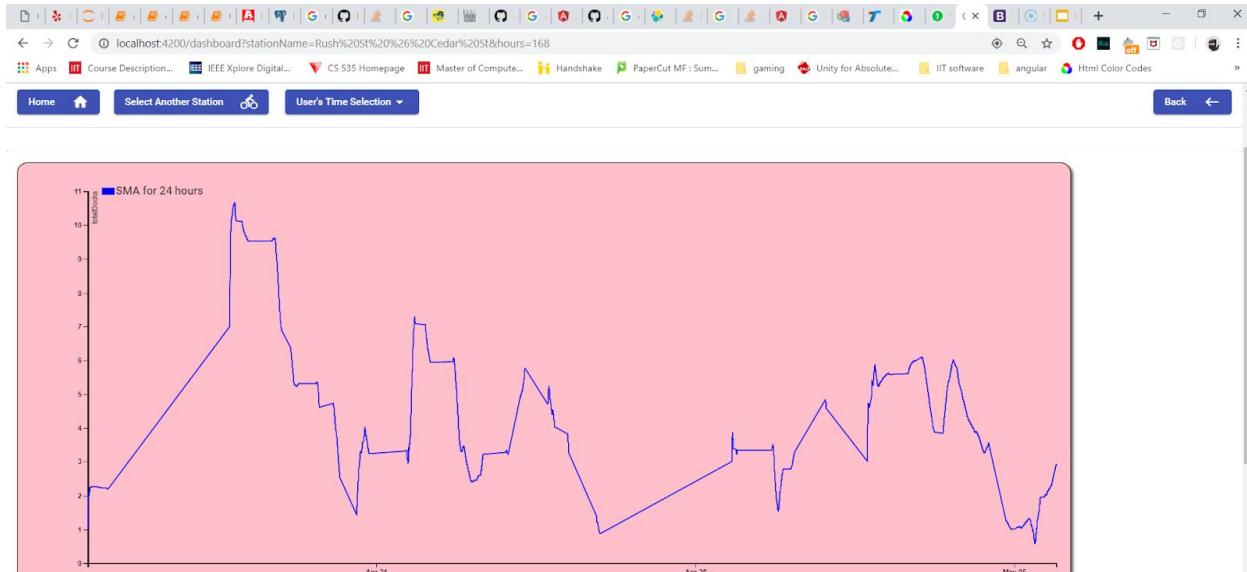
## 28 Dashboard Displaying hourly status of Available Docks based on Users Time Range for Past week, Past month and Past year



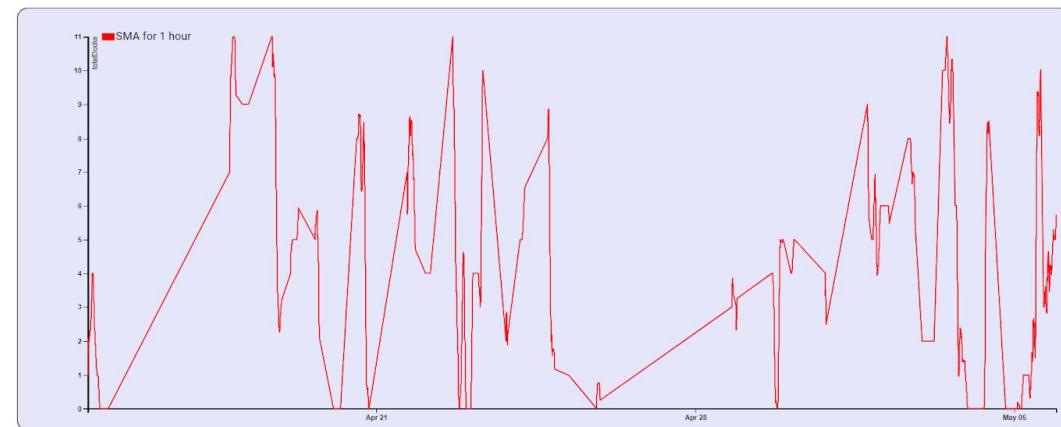
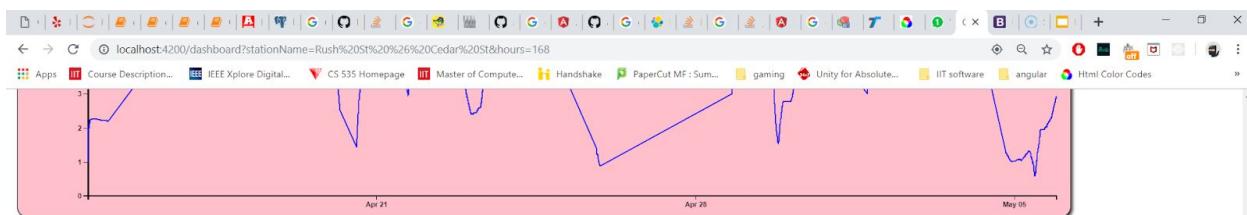
By default displaying for past week

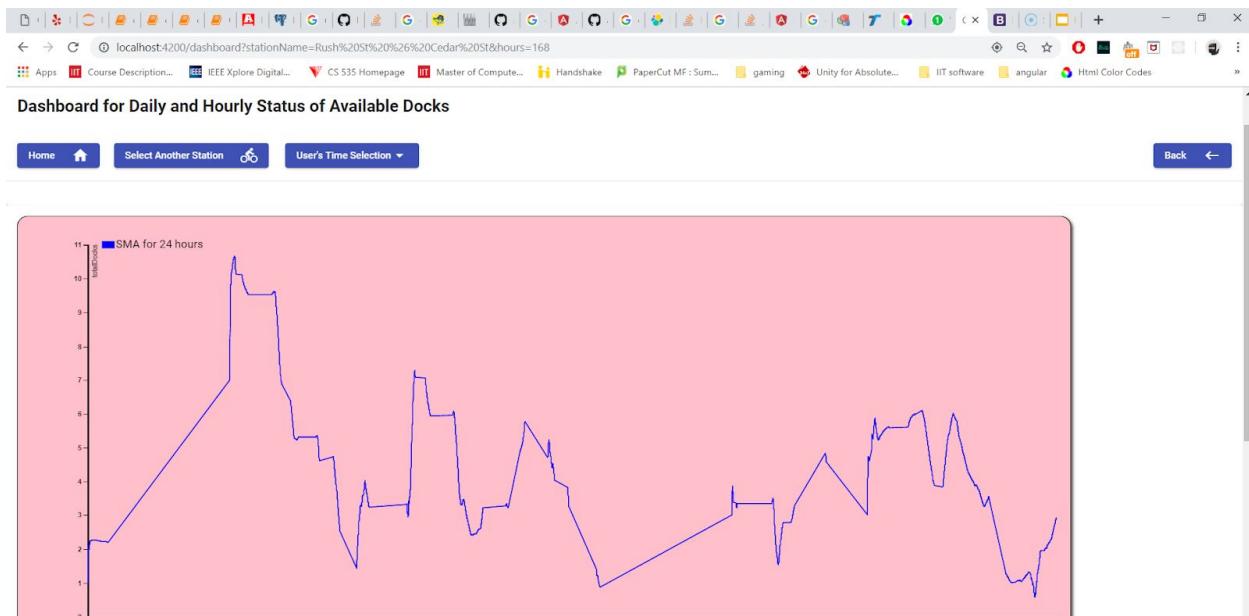


### 31 displaying for past month



### 32



**33 Displaying for past year****34**