

MAPS



What is our GOAL for this MODULE?

We learned to render interactive maps on the web using the Mapbox GL JS library.

What did we ACHIEVE in the class TODAY?

- We learned to create a Mapbox account.
- We learned to render maps in web applications using the Mapbox GL JS library.

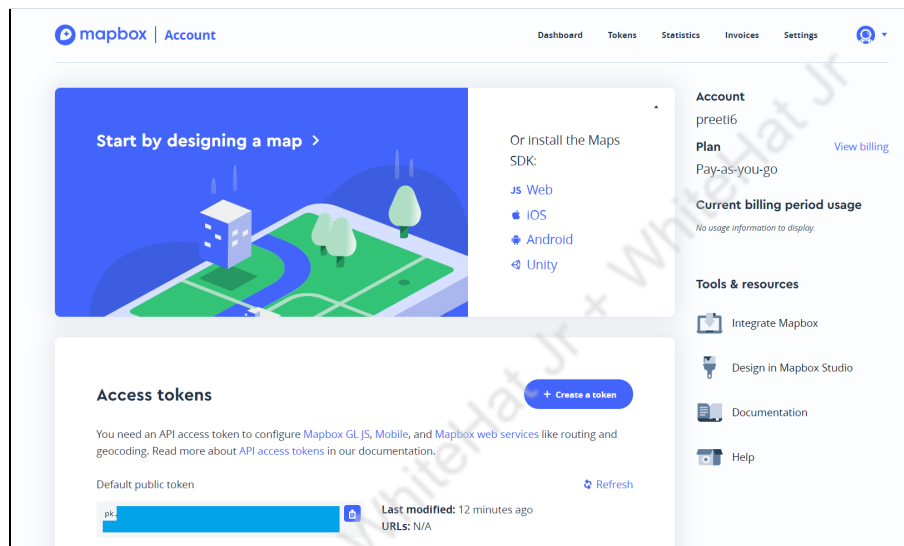
Which CONCEPTS/CODING BLOCKS did we cover today?

- Create Mapbox Account
- Mapbox API
- Map Object
- GeolocateControl and MapDirections control to the maps

How did we DO the activities?

1. Create Mapbox account:

- [Create Mapbox Account](#)
- [Steps to Create Account Document](#)



2. Include Mapbox API links (js and css) and other libraries (Bootstrap and jQuery) in the <head> tag of index.html.

```
<head>
  <meta charset="utf-8" />
  <meta http-equiv="X-UA-Compatible" content="IE=edge" />
  <meta name="viewport" content="initial-scale=1,maximum-scale=1,user-scalable=no">

  <title>Navigation</title>

  <!-- jQuery -->
  <script src="https://code.jquery.com/jquery-3.6.0.min.js"
    integrity="sha256-/xUj+300J5yEx1q6G88thSsNjpSL0n8PARn9HuZOnIxN0hoP+VmmDGMN5t9UJ02" crossorigin="anonymous"></script>

  <!-- Bootstrap -->
  <link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css"
    integrity="sha384-JcKb8q31qJ61gN9Kgb8thSsNjpSL0n8PARn9HuZOnIxN0hoP+VmmDGMN5t9UJ02" crossorigin="anonymous">
  <script src="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/js/bootstrap.bundle.min.js"
    integrity="sha384-LtrjvnR4Twt/qOuYxE721u19sVFLVSA4hf/rRt6PrZTmiPltdZcI7q7PXQBYTKyf"
    crossorigin="anonymous"></script>

</head>
```

```
<!-- Mapbox -->
<link href="https://api.mapbox.com/mapbox-gl-js/v2.1.1/mapbox-gl.css" rel="stylesheet">
<script src="https://api.mapbox.com/mapbox-gl-js/v2.1.1/mapbox-gl.js"></script>
```

- Copy the “**Default public token**” from the Mapbox account dashboard and assign it to `mapboxgl.accessToken` property in **main.js** file.

```
// Initializing Mapbox  
mapboxgl.accessToken = 'pk.eyJ1IjoiYXNjaW9udG8iLCJ2IjoiMCJ9.YmF0dG8';
```

4. Add the **Map** object.

```
// Initializing Mapbox  
mapboxgl.accessToken = 'pk.eyJk...';  
  
var map = new mapboxgl.Map({  
});
```

5. Add the container option in the Map object.

```
var map = new mapboxgl.Map({
  container: 'map',
});
```

6. Set the map style.

```
var map = new mapboxgl.Map({
  container: 'map',
  style: 'mapbox://styles/mapbox/streets-v11',
});
```

7. Set the longitude and latitude variables and the centre options and zoom.

```
var map = new mapboxgl.Map({
  container: 'map',
  style: 'mapbox://styles/mapbox/streets-v11',
  center: [longitude, latitude],
  zoom: 16
});
```

8. Add the map controls:

- **GeolocateControl**

- Create a new **GeolocateControl** object using **mapboxgl** variable.
- Set **positionOptions** and **trackUserLocation** parameters.

```
map.addControl(  
  new mapboxgl.GeolocateControl({  
    positionOptions: {  
      enableHighAccuracy: true  
    },  
    trackUserLocation: true  
  })  
);
```

- **MapboxDirections:**

- Create a new **MapboxDirections** object using **accessToken**.
- Set the position of the control on the map.

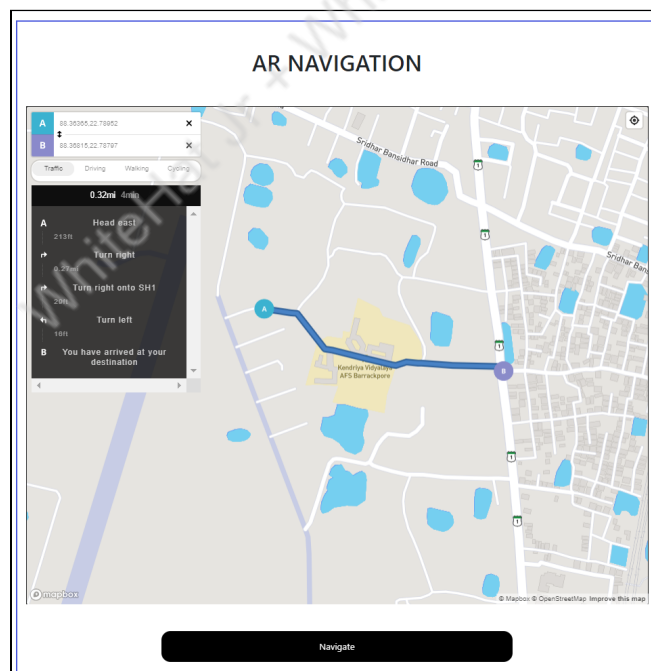
```
map.addControl(  
  new MapboxDirections({  
    accessToken: mapboxgl.accessToken  
  }),  
  'top-left'  
);
```

9. Test the output:

- **GeolocateControl**



- **MapboxDirections control**



We learned to add GeolocateControl and MapDirections control to the maps using Mapbox API.

What's NEXT?

In the next class, we will learn how to get any location's longitude and latitude using the query parameters.

EXTEND YOUR KNOWLEDGE:

- You can refer to the link below to explore more about [A-Frame](#).
- You can refer to the link to explore more about [jQuery](#).
- You can refer to the link to explore more about [Mapbox API](#).

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