Bing Map Api

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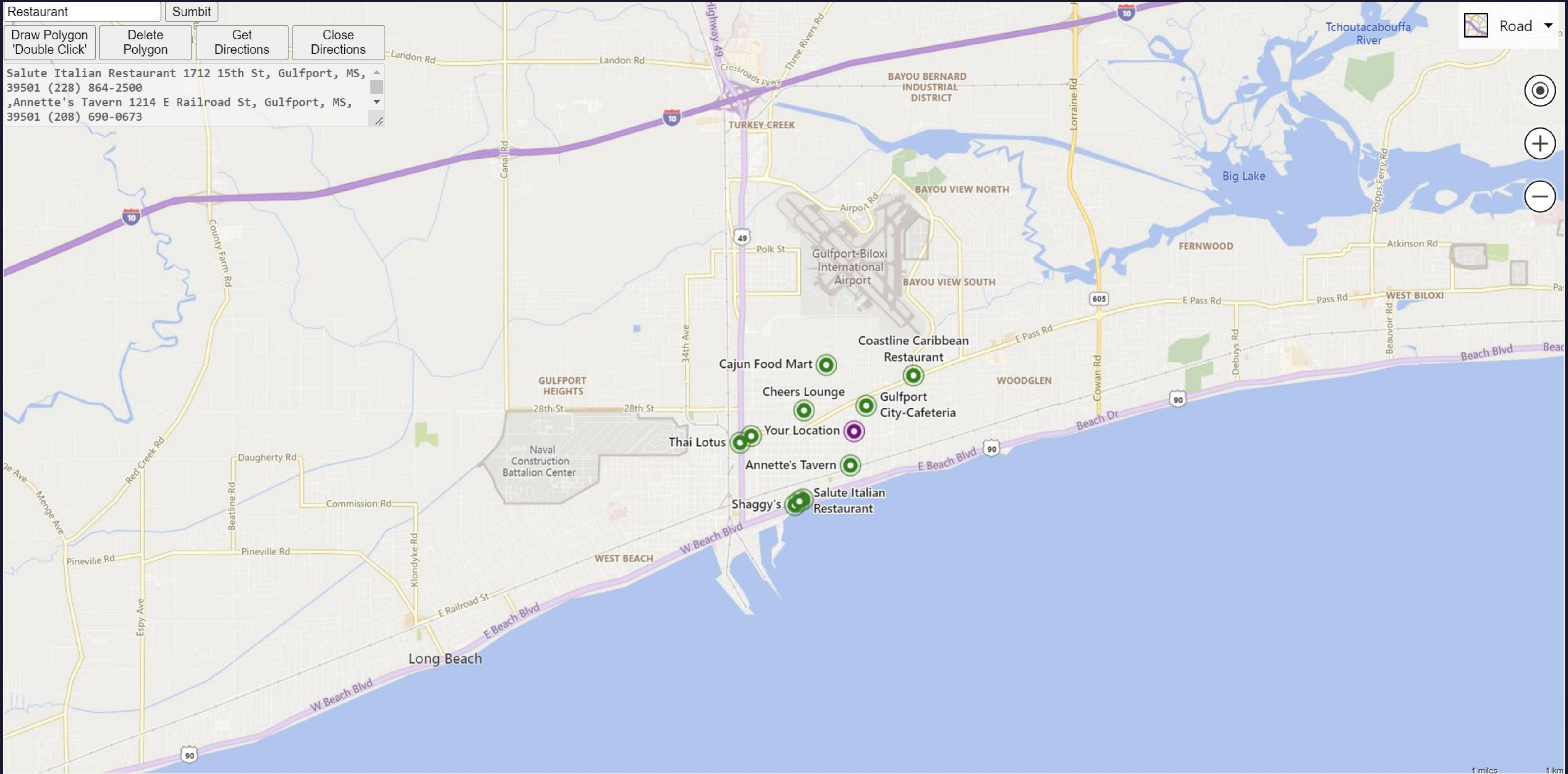
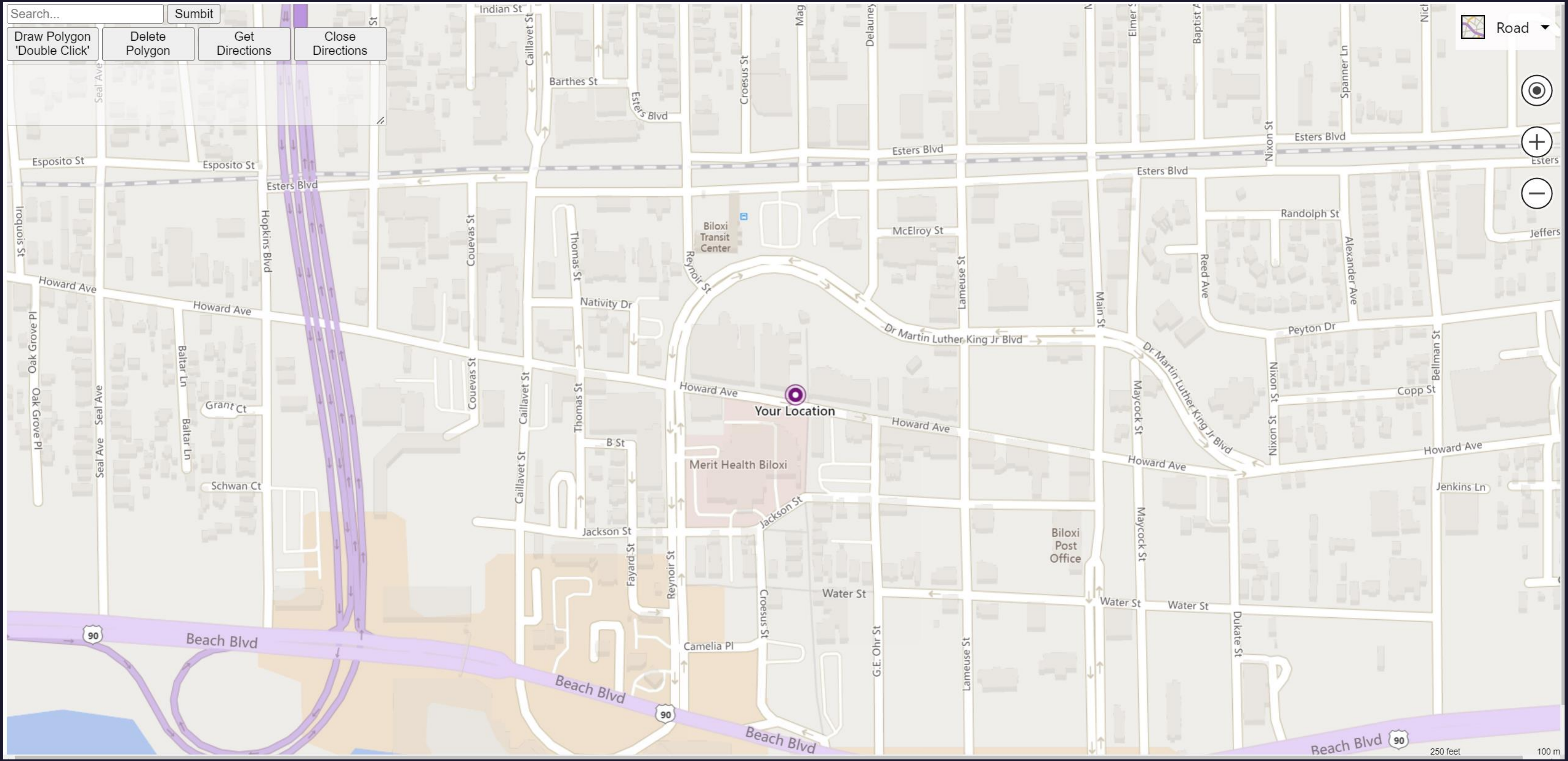
What the program should do

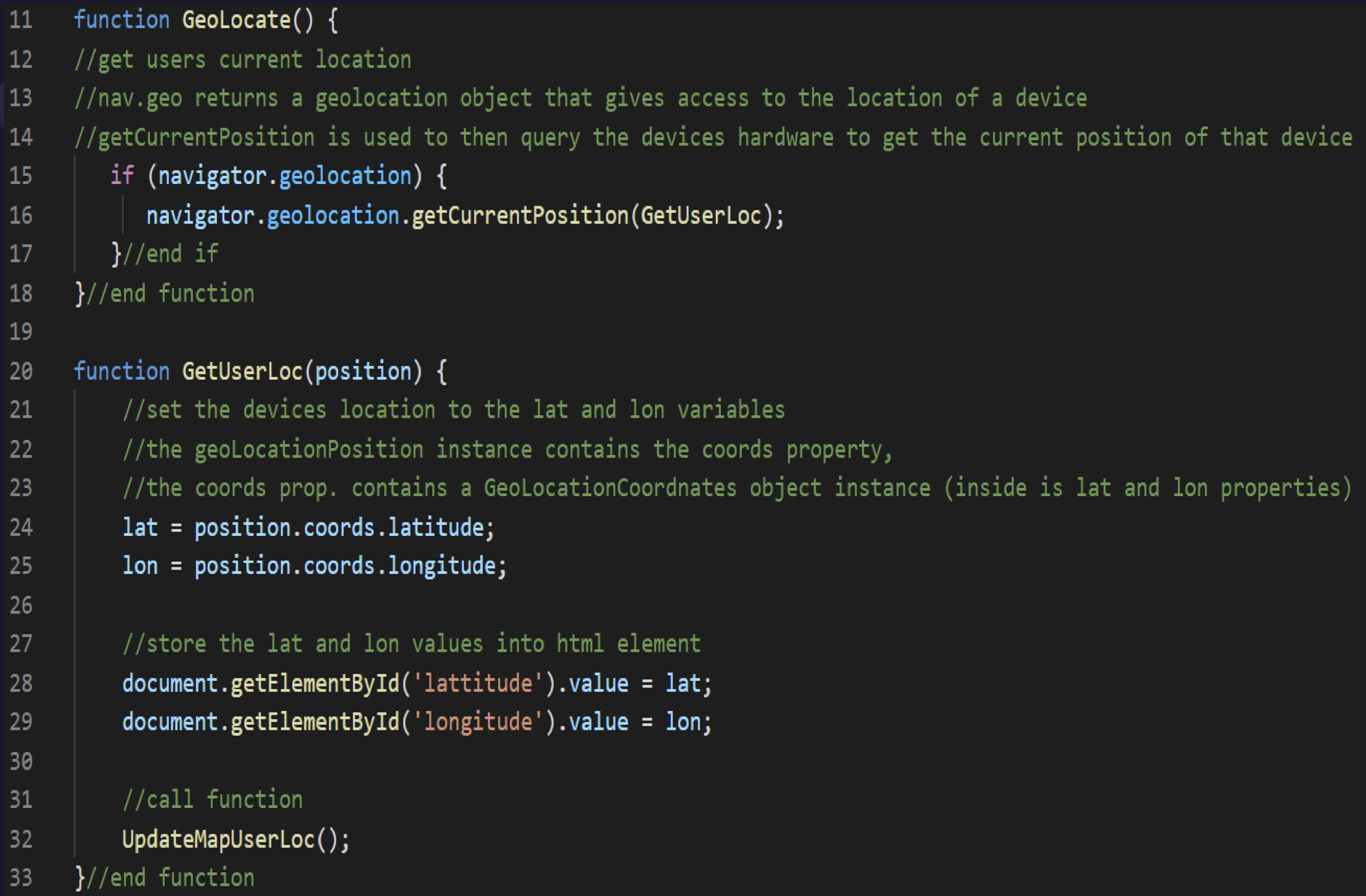


Restaurant

```
Salute Italian Restaurant 1712 15th St, Gulfport, MS,
39501 (228) 864-2500
,Annette's Tavern 1214 E Railroad St, Gulfport, MS,
39501 (208) 690-0673
```


Search...
Sumbit
Draw Polygon 'Double Click'
Delete Polygon
Get Directions
Close Directions
Road
Your Location
Indian St
Barthes St
Esters Blvd
Esposito St
Iroquois St
Hopkins Blvd
Couevas St
Thomas St
Caillavet St
Reynoir St
Croesus St
Delauney St
Biloxi Transit Center
McElroy St
Lameuse St
Main St
Randolph St
Reed Ave
Alexander Ave
Spanner Ln
Nixon St
Jeffers
Howard Ave
Nativity Dr
Dr Martin Luther King Jr Blvd
Peyton Dr
Copp St
Bellman St
Maycock St
Oak Grove Pl
Seal Ave
Baltar Ln
Grant Ct
Schwan Ct
B St
Merit Health Biloxi
Jackson St
Fayard St
Biloxi Post Office
Jenkins Ln
Water St
Camelia Pl
G.E. Ohr St
Dukate St
Beach Blvd
90
250 feet
100 m

Retrieve Users location



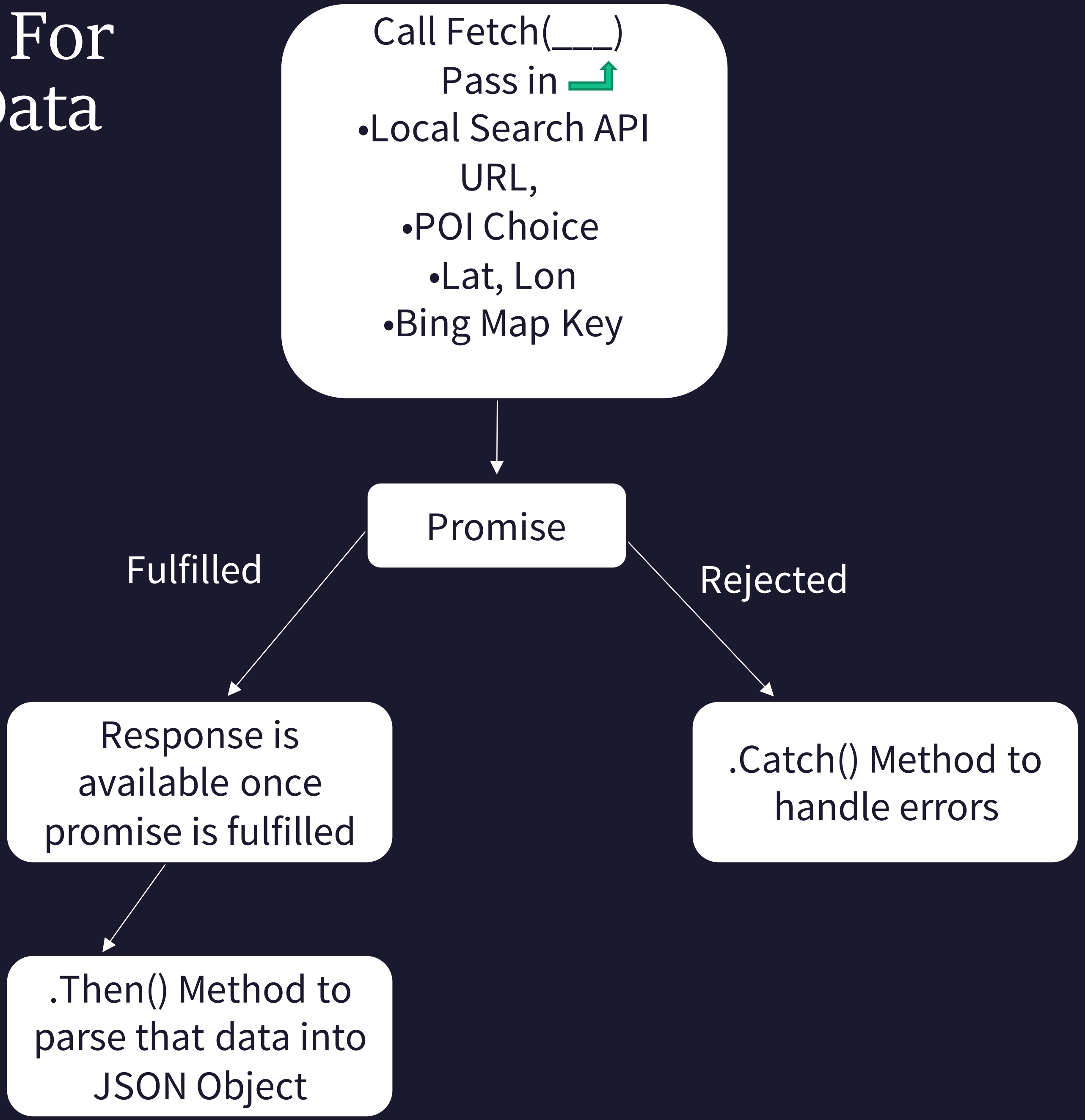
```
function GeoLocate() {
//get users current location
//nav.geo returns a geolocation object that gives access to the location of a device
//getCurrentPosition is used to then query the devices hardware to get the current position of that device
   if (navigator.geolocation) {
      navigator.geolocation.getCurrentPosition(GetUserLoc);
   }//end if
}//end function

function GetUserLoc(position) {
    //set the devices location to the lat and lon variables
    //the geoLocationPosition instance contains the coords property,
    //the coords prop. contains a GeoLocationCoordnates object instance (inside is lat and lon properties)
    lat = position.coords.latitude;
    lon = position.coords.longitude;

    //store the lat and lon values into html element
    document.getElementById('lattitude').value = lat;
    document.getElementById('longitude').value = lon;

    //call function
    UpdateMapUserLoc();
}//end function
```

Query API For Location Data



Call Fetch(___)
Pass in ⮥

- Local Search API URL,
- POI Choice
- Lat, Lon
- Bing Map Key

Promise

Fulfilled

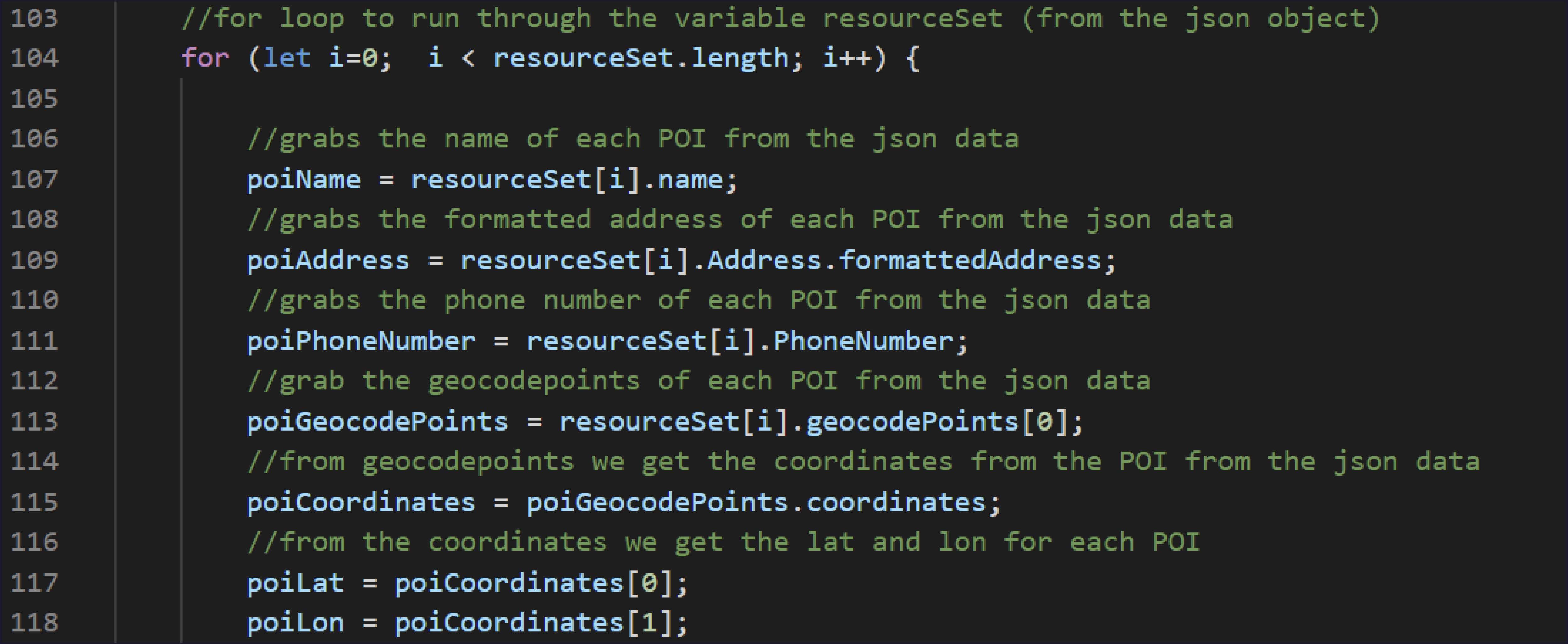
Response is available once promise is fulfilled

.Then() Method to parse that data into JSON Object

Rejected

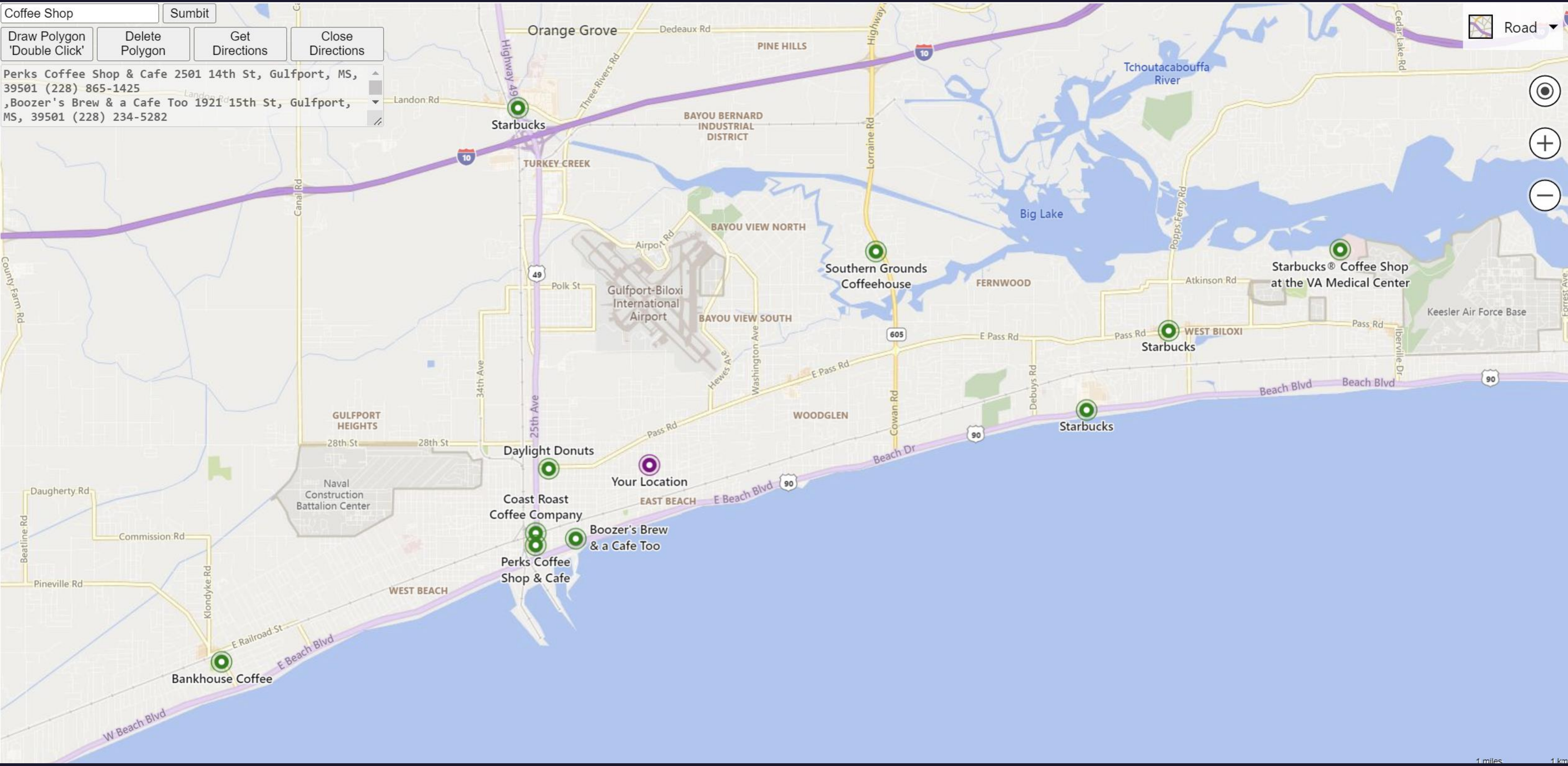
.Catch() Method to handle errors

Retrieve/Store POI Data



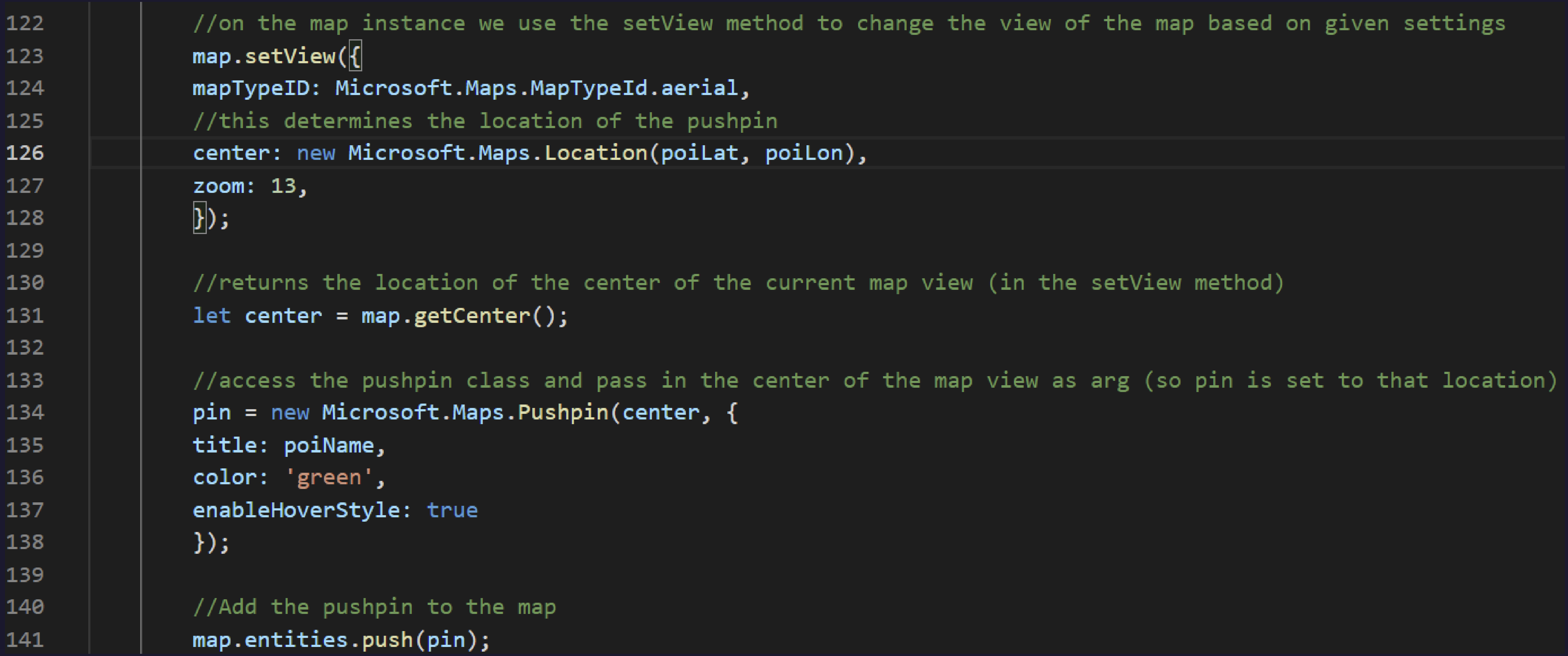
```
    //for loop to run through the variable resourceSet (from the json object)
    for (let i=0;  i < resourceSet.length; i++) {

        //grabs the name of each POI from the json data
        poiName = resourceSet[i].name;
        //grabs the formatted address of each POI from the json data
        poiAddress = resourceSet[i].Address.formattedAddress;
        //grabs the phone number of each POI from the json data
        poiPhoneNumber = resourceSet[i].PhoneNumber;
        //grab the geocodepoints of each POI from the json data
        poiGeocodePoints = resourceSet[i].geocodePoints[0];
        //from geocodepoints we get the coordinates from the POI from the json data
        poiCoordinates = poiGeocodePoints.coordinates;
        //from the coordinates we get the lat and lon for each POI
        poiLat = poiCoordinates[0];
        poiLon = poiCoordinates[1];
```



```
Perks Coffee Shop & Cafe 2501 14th St, Gulfport, MS,
39501 (228) 865-1425
,Boozer's Brew & a Cafe Too 1921 15th St, Gulfport,
MS, 39501 (228) 234-5282
```

Add Pins To Map

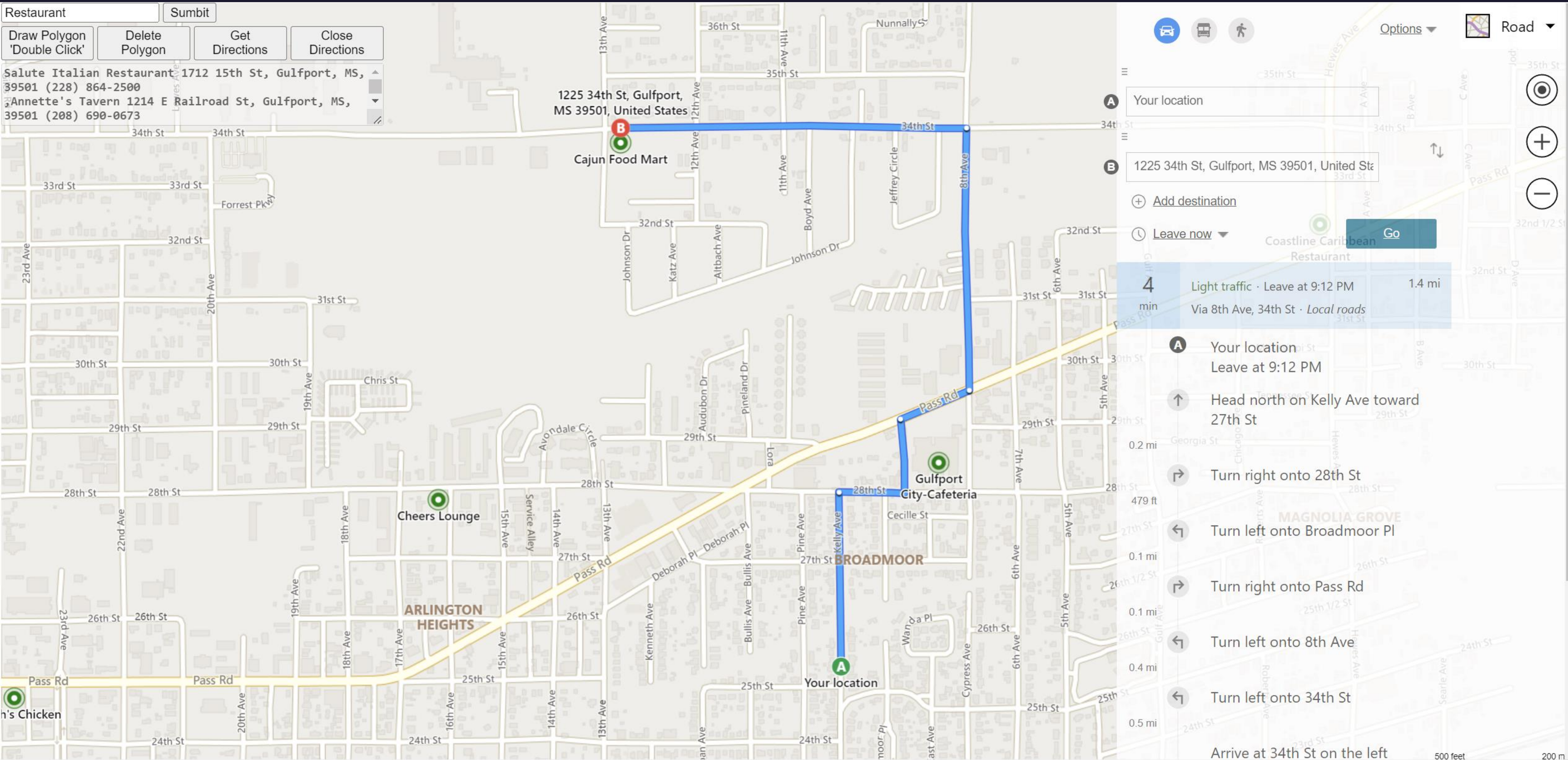


```
//on the map instance we use the setView method to change the view of the map based on given settings
map.setView({
mapTypeID: Microsoft.Maps.MapTypeId.aerial,
//this determines the location of the pushpin
center: new Microsoft.Maps.Location(poiLat, poiLon),
zoom: 13,
});

//returns the location of the center of the current map view (in the setView method)
let center = map.getCenter();

//access the pushpin class and pass in the center of the map view as arg (so pin is set to that location)
pin = new Microsoft.Maps.Pushpin(center, {
title: poiName,
color: 'green',
enableHoverStyle: true
});

//Add the pushpin to the map
map.entities.push(pin);
```



Restaurant

Sumbit

Draw Polygon 'Double Click' | Delete Polygon | Get Directions | Close Directions

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```

Options

Road

A: Your location

B: 1225 34th St, Gulfport, MS 39501, United Sta

Add destination

Leave now

Go

4 min | Light traffic · Leave at 9:12 PM · Via 8th Ave, 34th St · *Local roads* | 1.4 mi

A Your location
Leave at 9:12 PM

Head north on Kelly Ave toward 27th St

0.2 mi

Turn right onto 28th St

479 ft

Turn left onto Broadmoor Pl

0.1 mi

Turn right onto Pass Rd

0.1 mi

Turn left onto 8th Ave

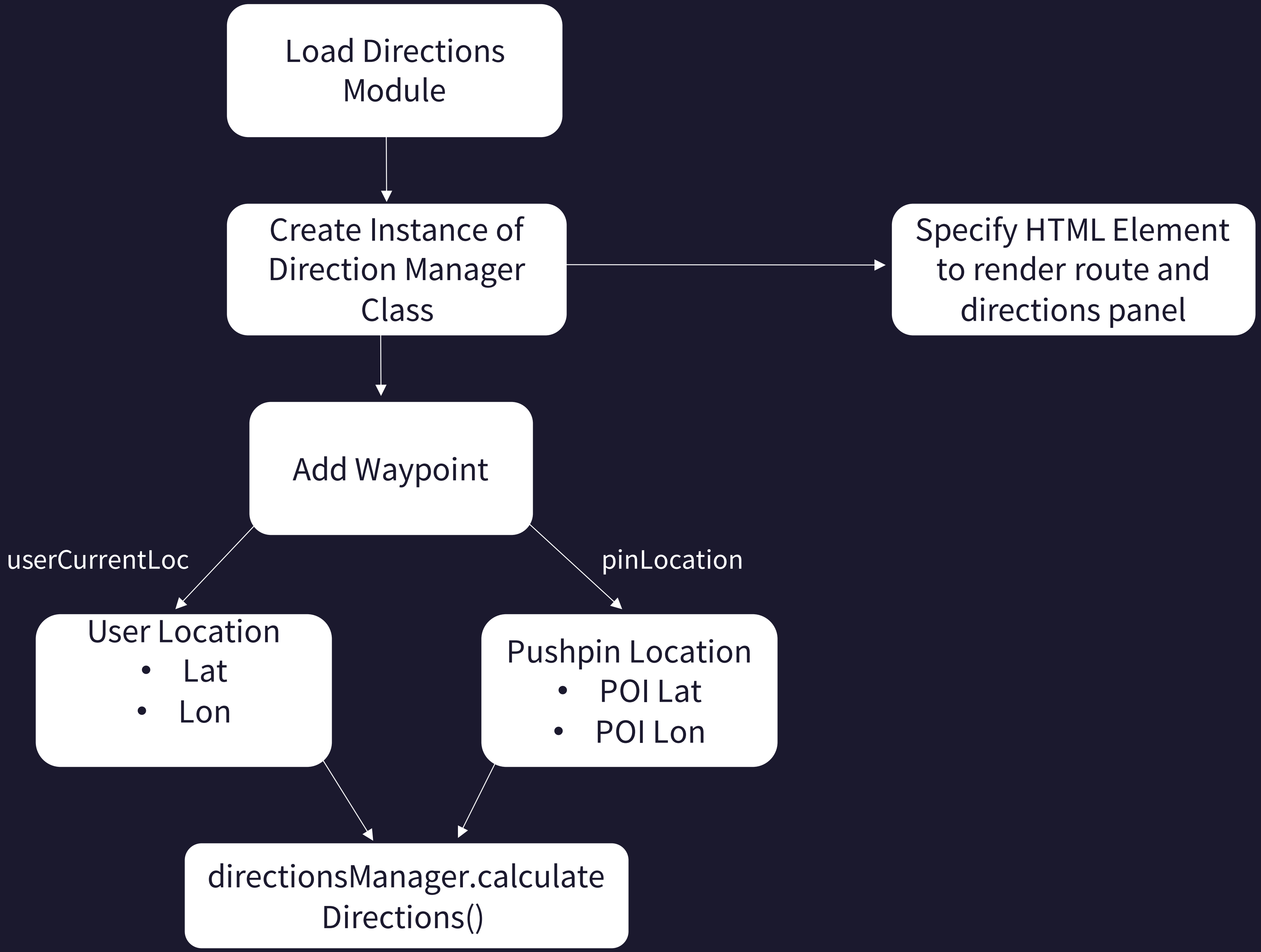
0.4 mi

Turn left onto 34th St

0.5 mi

Arrive at 34th St on the left

Retrieve Directions To POI



Load Directions Module

Create Instance of Direction Manager Class

Specify HTML Element to render route and directions panel

Add Waypoint

userCurrentLoc

pinLocation

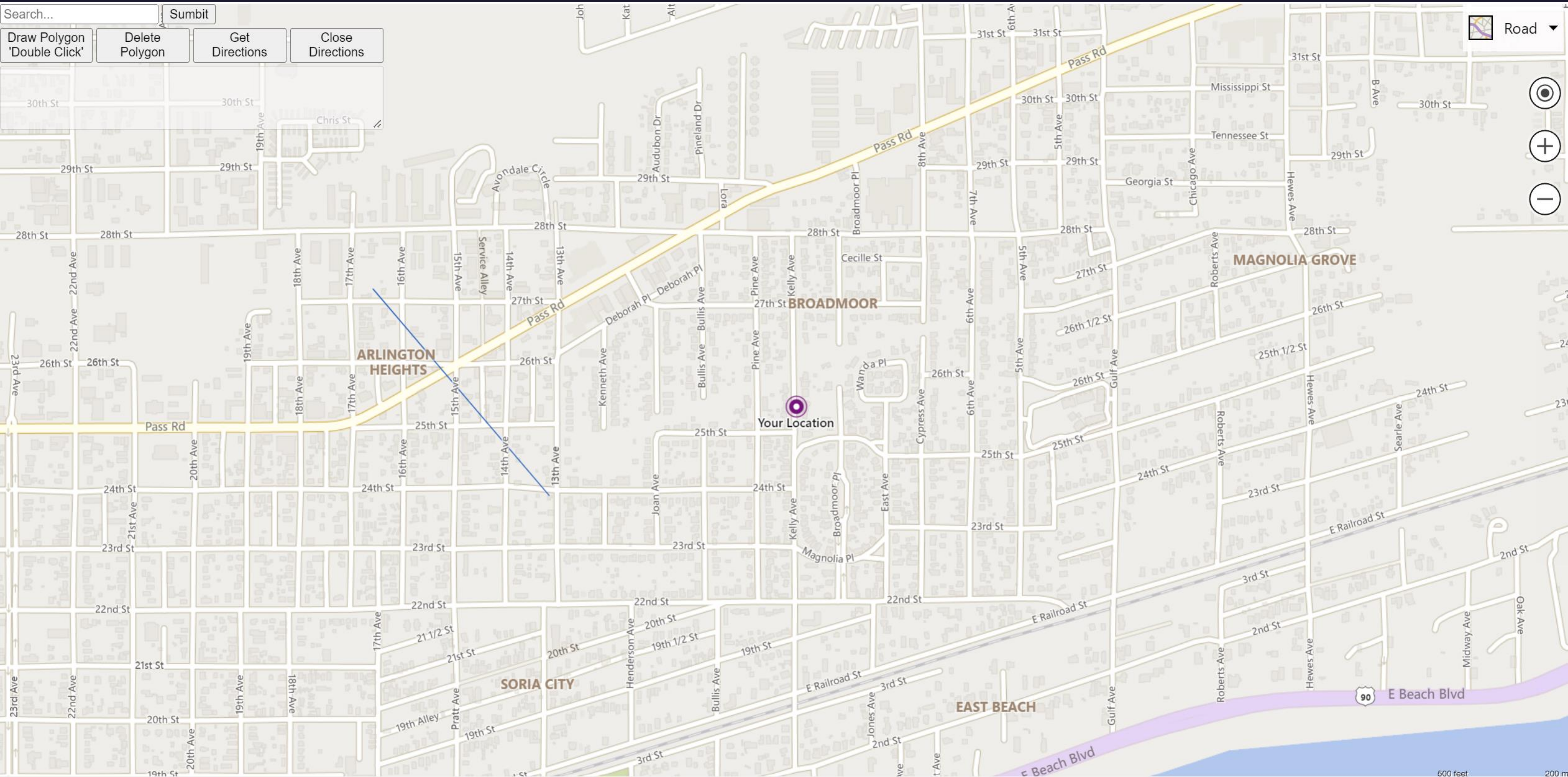
User Location

- Lat
- Lon

Pushpin Location

- POI Lat
- POI Lon

directionsManager.calculateDirections()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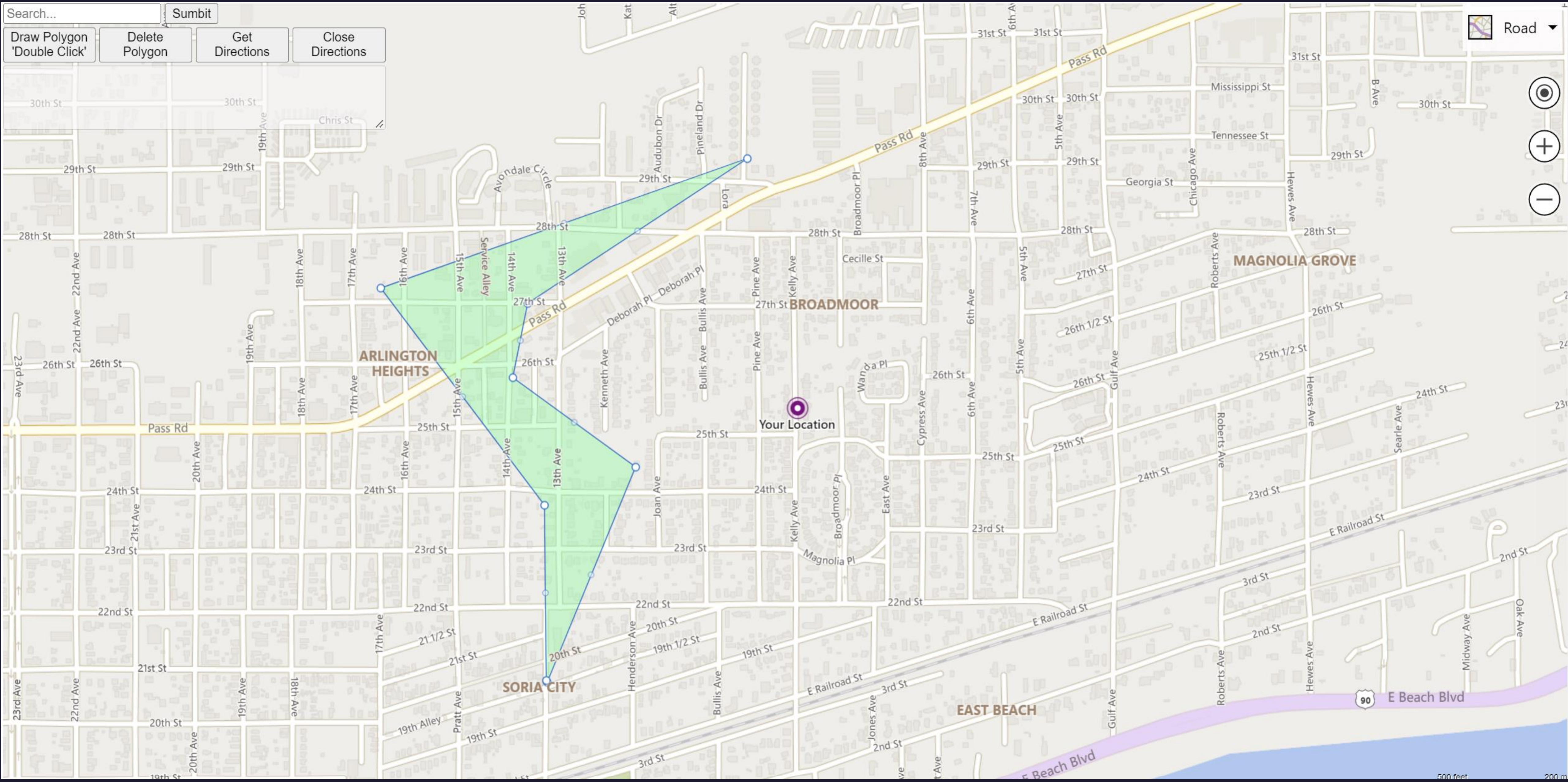
ARLINGTON HEIGHTS
BROADMOOR
MAGNOLIA GROVE
SORIA CITY
EAST BEACH
Your Location
Pass Rd
E Beach Blvd
90
E Railroad St
31st St
30th St
29th St
28th St
27th St
26th St
25th St
24th St
23rd St
22nd St
21st St
20th St
19th St
Mississippi St
Tennessee St
Georgia St
Cecille St
Deborah Pl
Avondale Circle
Magnolia Pl
Wanda Pl
Kelly Ave
Pine Ave
Bullis Ave
Broadmoor Pl
Cypress Ave
East Ave
Gulf Ave
Hewes Ave
Roberts Ave
Chicago Ave
Kenneth Ave
Joan Ave
Henderson Ave
13th Ave
14th Ave
15th Ave
16th Ave
17th Ave
18th Ave
19th Ave
20th Ave
21st Ave
22nd Ave
23rd Ave
Service Alley
Audubon Dr
Pineland Dr
Chris St
500 feet
200 m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Pineland Dr
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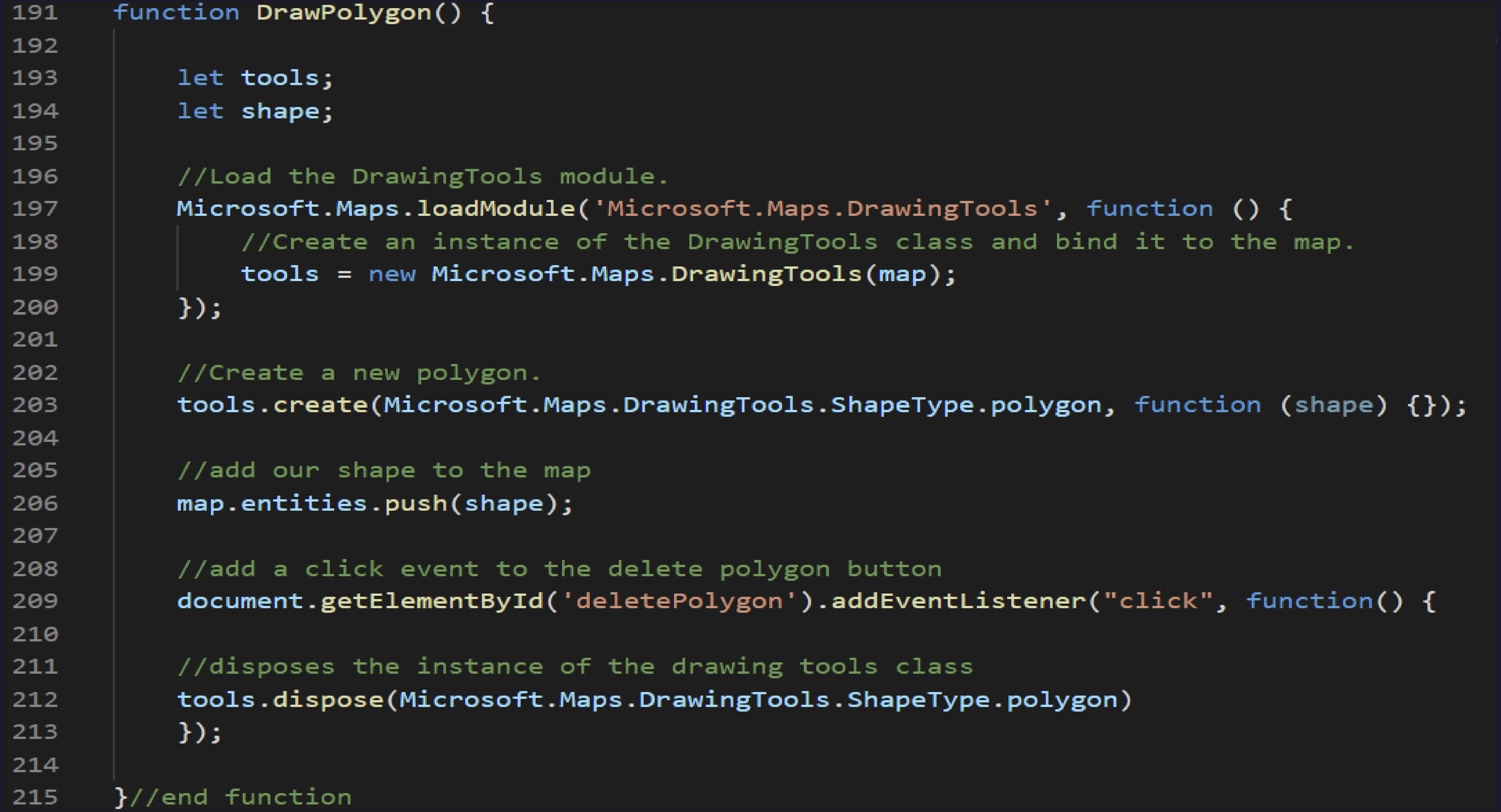
Mississippi St
Tennessee St
Georgia St
Magnolia Pl
Kelly Ave
Pine Ave
Bullis Ave
Kenneth Ave
Henderson Ave
Joan Ave
Broadmoor Pl
Cypress Ave
East Ave
Gulf Ave
Roberts Ave
Hewes Ave
Chicago Ave
Searle Ave
Midway Ave
Oak Ave
13th Ave
14th Ave
15th Ave
16th Ave
17th Ave
18th Ave
19th Ave
20th Ave
21st Ave
22nd Ave
23rd Ave
Service Alley
Pratt Ave
19th Alley
5th Ave
6th Ave
7th Ave
8th Ave
500 feet
200 m

Draw Polygon



```
function DrawPolygon() {

    let tools;
    let shape;

    //Load the DrawingTools module.
    Microsoft.Maps.loadModule('Microsoft.Maps.DrawingTools', function () {
        //Create an instance of the DrawingTools class and bind it to the map.
        tools = new Microsoft.Maps.DrawingTools(map);
    });

    //Create a new polygon.
    tools.create(Microsoft.Maps.DrawingTools.ShapeType.polygon, function (shape) {});

    //add our shape to the map
    map.entities.push(shape);

    //add a click event to the delete polygon button
    document.getElementById('deletePolygon').addEventListener("click", function() {

    //disposes the instance of the drawing tools class
    tools.dispose(Microsoft.Maps.DrawingTools.ShapeType.polygon)
    });

}//end function
```

Closing Thoughts, Questions?