Visualizing Map Data Using a Js Library

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Step 1: Set up my HTML document

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" con tent="width=device-width, initial-scale=1.0">
    <title>Anna's API</title>
    <link rel="stylesheet" href="style.css">
```

Step 2: Use the API: Set up link to stylesheet from Leaflet

```
<link rel="stylesheet" href="https://unpkg.com/leaflet@1.7.1/dist/leaflet.css"/>
```

Referencing the public API domain

Step 3: <u>Use API:</u> <style> the #map with absolute size specifications

```
<style> #map {position: absolute; top: 5em; bottom: 5em; left: 4em; right: 4em;} </style>
```

Styling the map: absolute size in browser and dimensions

Step 4: <u>Use the API:</u> Set up a <div> with my 'Map Id'

Wrap Map in div to specify its features

Step 5: <u>Retrieve Information (Map data)</u>
Created a map variable and set the view with Latitude and longitude

```
var map = L.map('map'). setView ([43.70639560832276, -79.38413969916203], 1);
```

Variable: View world map, coordinates are narrowed to a coordinate

in Toronto

Step 6: <u>Make API Request:</u>

Added a tile layer to map base with raster tiles from Map Tiler cloud

```
L.tileLayer('https://api.maptiler.com/maps/streets/{z}/{x}/{y}.png?key=FI5onZC9dFL5xXYPAjba', {
```

Sourced tile layer from Map Tiler (street view)

Step 7: <u>Retrieve Information:</u> Add the attribution link from Map tiler host & add to map

```
attribution: '<a href="https://www.maptiler.com/copyright/" target="_blank">&copy; MapTiler</a>
<a href="https://www.openstreetmap.org/copyright" target="_blank">&copy; OpenStreetMap contributors</a>'
```

Attributing the tile layer to MapTiler where I found it

Step 8: <u>Make API request:</u>
Create new variable with marker to place on top of map tile with lat/longitude
(for Toronto)

```
}).addTo(map);
var marker = L.marker ( [43.70639560832276, -79.38413969916203]), {icon:MapIcon}).
```

Map marker on lat/longitude for Toronto location

Created another variable for a second marker to place on top of map tile with lat/ longitude for another location in Toronto

```
var redIcon = L.icon ( {
    iconURL: 'red-map-marker.png'
    iconSize: [30,50],
    iconAnchor: [20,60],
    popupAnchor: [-2.-8]
});
```

Used a different png icon

Step 9: Style: Created icon variable for map marker

```
var mapIcon = L.icon ({
    iconURL: '512px-Map_marker.svg.png'
    iconSize: [30, 50]
    IconAnchor: [15,50]
    popupAnchor: [-3,-7]
```

Locate in reference to the popup

Created another icon variable for map marker 2

```
var marker = L.marker ([43.705389, − 79.3731286]), {icon:MapIcon} addTo (map); bindPopup ('Here is another marker!')
```

At a slightly different location a

couple blocks away!

Step 10: Use API: Create popup function

```
}).addTo(map);
var marker = L.marker ( [43.70639560832276, -79.38413969916203]), {icon:MapIcon}). addTo (map); bindPopup ('Welcome to Toronto!')
```

A popup with appear next to the marker icon and say "Welcome to Toronto"

Step 10: <u>Additional Informational Text:</u> Write HTML for website grid

```html
<div class="grid">
    <h1> Hello Everyone! </h1>
    <h2> Welcome to a simple map API </h2>
    <h3> By Anna </h3>
</div>

<div class="grid2">
    <h4> See the map below</h3>
</div>


<div class="grid3">
    <h4> You are here </h4>
</div>



</body>
</html>
```
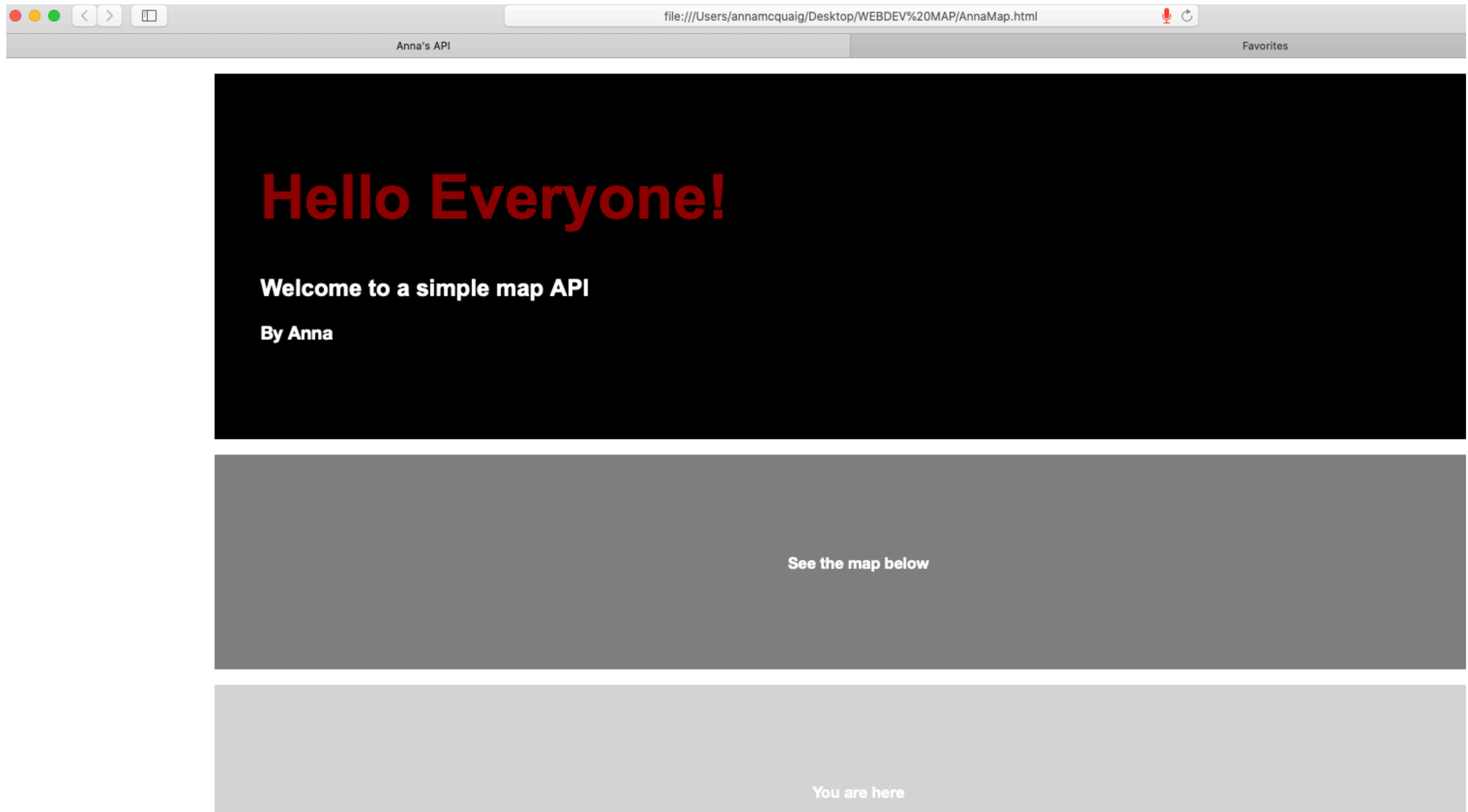
Divide site structure into

3 boxes

The site opened on live server

file:///Users/annamcquaig/Desktop/WEBDEV%20MAP/AnnaMap.html

Anna's API | Favorites

Hello Everyone!

Welcome to a simple map API

By Anna

See the map below

You are here

Step 10: Write CSS for styling website structure - headers, grid and spacing

```css
html {
    font-family: 'helvetica neue', helvetica, arial, sans-serif;
}

body {
    width: 80%;
    margin: 0 auto;
    color: white;
}

h1, h2 {
    font-family: Arial, Helvetica, sans-serif
}

/* header styles */

h1 {
    font-size: 4rem;
    text-align: left;
    color: darkred;
}

h4 {
    text-align: center;
}

header p {
    font-size: 1.3rem;
    font-weight: bold;
    text-align: left;
}
```

```css
.grid {
    background-color: black;
    padding: 5em;
    padding-left:3em;
    margin-left:3em;
    margin-right:4em;
    margin-top: 0em;
    padding-top:3em;

}

.grid2 {
    background-color: gray;
    padding: 5em;
    padding-left:3em;
    margin-left: 3em;
    margin-top: 1em;
}

.grid3 {
    background: lightgray;
    padding: 5em;
    padding-left: 3em;
    margin-left: 3em;
    margin-top: 1em;
```

```css
.mapid {
    height: 100px;
    width: 90px;
```

Sizing for map in
web viewport

Using Json to Parse Data: 2 different coordinates on the map

```
user.json
  {
        "marker": "annashouse",
        "size": "900sqft",
        "colour": "blue",
        "friend": [{
            "marker": "bobshouse",
            "size": "800sqft",
            "colour": "green",
        }]
  }

</script>
```