Copilot

Sure! This JavaScript code initializes a Google Map and adds a heatmap layer based on GeoJSON data. Here's a breakdown of what each part does:

1. **Initialize the Map**:

```
var map = new google.maps.Map(document.getElementById('map'), {
    zoom: 13,
    center: {lat: 38.951643, lng: -92.334038},
    mapTypeId: 'roadmap'
});
```

   - This creates a new Google Map centered at the coordinates (38.951643, -92.334038) with a zoom level of 13 and a roadmap type.

2. **Load GeoJSON Data**:

```
fetch('COMOGeoJSON.json')
    .then(response => {
        console.log('Response received:', response);
        return response.json();
    })
    .then(data => {
        console.log('Data parsed:', data);
        var heatmapData = [];
```

   - The `fetch` function retrieves the GeoJSON data from the file `COMOGeoJSON.json`.
   - The response is logged and then parsed into JSON format.

3. **Process GeoJSON Data**:

```
data.features.forEach(feature => {
    var coords = feature.geometry.coordinates;
    var latLng = new google.maps.LatLng(coords[1], coords[0]);
    heatmapData.push(latLng);
});
```

   - The code iterates over each feature in the GeoJSON data.
   - It extracts the coordinates and converts them into `google.maps.LatLng` objects.
   - These objects are added to the `heatmapData` array.

4. **Create and Display Heatmap**:

```
var heatmap = new google.maps.visualization.HeatmapLayer({
    data: heatmapData
});

heatmap.setMap(map);
```

   - A new heatmap layer is created using the `heatmapData` array.
   - The heatmap is then added to the map.

5. **Error Handling**:

```
.catch(error => console.error('Error loading GeoJSON data:', error));
```

   - If there's an error loading the GeoJSON data, it is logged to the console.

This code effectively visualizes geographic data on a Google Map using a heatmap, which can be useful for displaying density or intensity of data points. If you have any specific questions about parts of the code, feel free to ask!