

## Part I: logic.js

### Explanation:

#### I. Base Map Setup:

- **Creating Tile Layers:**
  - Uses L.tileLayer to create two tile layers:
    - streets: OpenStreetMap street map as the default base layer.
    - satelliteStreets: Mapbox satellite imagery as an alternative base layer. Includes attribution for both.
- **Creating the Map Object:**
  - Initializes a Leaflet map object centered on the United States ([39.5, -98.5]) with a zoom level of 3 using L.map.
  - Adds the streets tile layer as the initial layer displayed. Note that the comment indicates adding the 'basemap' is redundant, as this step is performed during map initialization with layers: [streets].
- **Layer Control (Optional):**
  - Creates a baseMaps object holding both tile layers, enabling switching between them.
  - Adds a layer control to the map using L.control.layers, allowing the user to select the desired base map.

#### II. Earthquake Data Visualization:

- **Retrieving Earthquake Data:**
  - Uses d3.json to fetch earthquake data from the USGS GeoJSON feed for the past week.
- **Styling Earthquake Markers:**
  - Defines a styleInfo function to dynamically style earthquake markers based on depth and magnitude:
    - getColor: Assigns colors to markers based on earthquake depth using conditional statements (if/else if). Deeper earthquakes receive darker, redder colors; shallower ones get greener colors.

- `getRadius`: Calculates marker radius based on earthquake magnitude, ensuring a minimum radius of 1 and scaling the radius with magnitude \* 4.
- **Adding Earthquake Data to the Map:**
  - Uses `L.geoJson` to add the earthquake data to the map.
    - `pointToLayer`: Converts each earthquake feature into a `L.circleMarker`.
    - `style`: Applies the `styleInfo` function to determine the appearance of each circle marker.
    - `onEachFeature`: Binds a popup to each marker displaying magnitude, depth, and location. Uses HTML within the `bindPopup` method for formatting. Fulfills the comment requirement to "Create a popup..."
- **Adding a Legend:**
  - Creates a legend control object using `L.control` and positions it in the bottom right corner of the map.
  - `legend.onAdd`: Defines the legend content dynamically. Creates colored squares corresponding to earthquake depths and labels them with depth ranges. Uses a `for` loop to iterate through depth intervals and colors, generating HTML for the legend.