Project 11: Web App with Leaflet JavaScript API (Up to 100 Points)

Task: Create a Leaflet map using the Leaflet JavaScript API. Make sure it meets all the criteria defined below. The theme or purpose of the map is up to you.

Notes:
   - ❖ Download the Leaflet source code and include it in your directory.
   - ❖ You will need to save all your data layers to GeoJSON and include them in the website directory.
   - ❖ You will need to include the source code for plugins in the website directory.

Requirements/Grading Considerations:
   - ❖ The map should include at least three operational layers. All operational layers should be stored in the website directory in GeoJSON format. Make sure to save the files to the WGS84 Web Mercator projection. You can use QGIS for data conversion. (Up to 10 Points)
   - ❖ Include zoom controls and pan controls on the map. (Up to 10 Points)
   - ❖ You should use at least three Leaflet plugins (not including zoom and pan controls). (Up to 10 Points)
   - ❖ All layers should have symbology defined in the script. You cannot use default symbology. (Up to 10 Points)
   - ❖ At least one layer should have a configured pop-up. (Up to 10 Points)
   - ❖ The users should be able to select from multiple base maps. All base maps should have appropriate attribution. (Up to 10 Points)
   - ❖ Users should be able to turn operational layers on and off. (Up to 10 Points)
   - ❖ Include a side bar that is collapsible. Within the sidebar, include a button that will set the extent of the map to a specific center and scale. Also include a button to Zoom to the default or original extent. (Up to 10 Points)
   - ❖ Include at least one point layer that is displayed using a custom icon. You can generate your own icons or use a free library (such as Font Awesome). (Up to 10 Points)
   - ❖ Overall quality of the website and web map. The resulting website and map should be professional, functional, and well configured. The site and map should have a clear theme and purpose and be designed with these in mind. (Up to 10 Points)

Deliverables:
   - ❖ Entire website directory in a compressed folder. This should include any needed files and the HTML. Data layers should be provided in GeoJSON format.