Summary:

    For my geovisualization, I wanted to be able to view higher order earthquakes (6.0+ magnitude) over the past 100 years in California with a specific focus on the San Francisco region. I started using some code we had previously used for the javascript "create a slider" map and built upon it. I downloaded my dataset from: https://earthquake.usgs.gov/earthquakes/search/

    Once I had downloaded my dataset, I adjusted it the same way we did in the slider assignment by creating a variable and converting my file from a geojson to a .js file. Once I successfully did that, I incorporated it into my code by replacing the .js source with the one I had just created and replaced the old variable names with the new variable name I decided to use. From here, the map functioned quite well. This was the baseline of my visualization.

    After I had a working visual, I decided to start adding to it so I could answer my question better. The first thing I wanted to do was add some sort of function where I could control whether I was looking at California as a whole or just San Francisco. To do this, I created two buttons: one zooms into San Francisco, and the other zooms out to view California. I created simple "onclick" functions to achieve this and asked the map to set the view to the coordinates of each area. After this was successful, I wanted to add a vector layer showing where the San Andreas Fault would be within California (this fault line is what I wanted to analyze specifically, which is why San Francisco was an area of particular interest, considering this fault runs right through its urbanized region). This layer is not meant to be interactive, but rather a static landmark, so to add it I just created a "src" tag that calls the vector layer into the map and places it based on its coordinates that are given within the file. This was successful. Finally, for this progress report, I wanted to add a marker on top of the San Andreas Fault that indicated that the line vector layer is the San Andreas Fault (I may know where the fault is, but not everyone viewing the map will know where it was, even if it was there was only one line on the map). I didn't just want to create a maker, but rather a marker you could disable and enable upon request so that the visualization would not be cluttered with information other than what someone would want to see. To do this, I created a simple marker, but I placed it within a layergroup and added that to the map. The layergroup successfully displayed on the map, but the function of the marker disappearing and reappearing upon clicking the layer "on" and "off" did not work. This is something I will need to fix (likely by adding a visibility function to the layer group). From here, I would like to make the map more visually appealing by adjusting where the slider is on the map, where the buttons are, seeing if another map format would be better to use (not using open street view), adding a legend with color being used to show what decades (or another specified portion of time) each of the earthquakes were in, and fix any other issues I did not resolve before the progress meeting.