Cole Fingerut

Leaflet HW Write UP

GWU Data Analytics.

1. Briefly explain the logic for generating the base map.
   1. Where we start building our tilelayer is where we setup the base map. You can see here that we give the map its attributes such as zoom level, tilesize, and bringing in the accesstoken—in this case our API key.
2. Describe how the JSON was loaded and how was the data traversed. Explain how was the information from the JSON used to render data on the map.
   1. Using d3.json we call our earthquake geoJSON url and retrieve the geoJSON data. Then we use a function to return style data for each of the earthquakes we are going to put on the map.
3. Explain the logic for generating the circles and amending the size of them. What does this communicate?
   1. The circles are meant to show the intensity/magnitude of the earthquakes. Making the circles bigger for bigger magnitudes helps the audience better understand the visualization of the data in terms that they can then associate with. As for the logic, we use a function and the switch/case format to basically write a conditional statement that will tell our code what color to make the circles, depending on the conditions(in this case, magnitude of earthquake).
4. Describe how the layer for the Tectonic plates was generated.
   1. We create an object that will hold the overlays we intend to create. Within these overlays we will have the “var overlays” (line 63) that establishes our tectonic plates layer. We then use leaflet to add this layer to the map.
5. What are the components in the layer control? How were they generated?
   1. The layer control will allow us to see which layers in the map are visible. We then use d3.json to grab our earthquake geoJSON data and then grabs the data we use for plotting.
6. Explain the difference between the base map (tile layer) and the data layer(s).
   1. The map layer is the base, in which we put the data layers on top of. We can think of the base map as the constant, almost like the crust of a pie, the foundation. The data kayers will continually change based on design and user input with the map. This has to be responsive and perform different actions on the go, whereas the base map (tile layer) is the “static” component in the amalgamation of the map.
7. Walk through the logic of how the legend was generated and rendered on the page.
   1. The first step in creating the legend is to use leaflet(L).control to declare your legend and give it any attributes you wish. Then we take that variable that is now our legend and we add all the details with the legend.onAdd property. Next, we will give the different grades of quake a color based on the “grades” array we just established. Then we must write a for loop that will go through our established intervals and label them with a color for each interval. Finally, we need to add all of this to the map and do so with a final legend.addTo(map) call.