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GEOG 817

Lab assignment 2

1) How would you add another class to your choropleth map?

Using the COVID numbers would add a new class to the choropleth and offer a different colorization to the map instead of using the circles. The way to change the map would be to switch out the “POP10” value to the COVID values so the colors would match up with the COVID cases known in each province. By changing the values of “POP10” to “COVID10” we can change the file to covid10 so the code would call something like this:

<script src="https://electionmaps.github.io/covid10.js"></script>

Var covid10=L.geoJson(covid10).addTo(map);

var basemaps = {

"Light Canvas": canvas,

"Satellite Imagery": imagery

};

var overlaymaps = {

"China Covid Cases ": covid10

};

function getColor(value) {

return value > 50000000 ? '#ffff00':

value > 25000000 ? '#f0e68c':

value > 10000000 ? '#eee8aa':

value > 5000000 ? '#fffacd':

'#ffffe0';

}

function style(feature){

return {

fillColor: getColor(feature.properties.COVID10),

weight: 2,

opacity: 1,

color: 'gray',

fillOpacity: 0.9

};

}

var provinces = new L.geoJson(covid10, {style:style}).addTo(map);

2) How would you add another class to your legend?

The use of COVID numbers on day 16 would most likely be the other measure that would be useful.

var populationLegend = L.control({position: 'bottomright'});

var populationCovidLegend = L.control({position: ‘bottomright’});

populationLegend.onAdd = function (map) {

var div = L.DomUtil.create('div', 'pop legend'),

grades = [0, 5000000, 10000000, 25000000, 50000000];

div.innerHTML = '<b>Population 2019 <br><br></b>';

for (var i = 0; i < grades.length; i++) {

div.innerHTML +=

'<i style="background:' + getColor(grades[i] + 1) + '"></i>' +

grades[i] + (grades[i + 1] ? '&ndash;' + grades[i + 1] + '<br><br>' : '+');

}

return div;

};

populationCovidLegend.onAdd = function (map) {

var div = L.DomUtil.create(‘div’, ‘COVID legend’),

grades = [0, 100, 250, 500, 1000];

div.innerHTML = ‘<b>COVID Cases Day 16<br></br></b>’;

for (var i = 0; i < grades.length; i++) {

div.innerHTML +=

'<i style="background:' + getColor(grades[i] + 1) + '"></i>' +

grades[i] + (grades[i + 1] ? '&ndash;' + grades[i + 1] + '<br><br>' : '+');

}

return div;

};

populationLegend.addTo(map);

map.on('overlayremove', function(eventLayer){

if (eventLayer.name == 'provinces'){

map.removeControl(populationCovidLegend);

populationLegend.addTo(map);

} else {

Map.removeControl(populationLegend);

populationCovidLegend.addTo(map);

});

map.on('overlayadd', function(eventLayer){

if (eventLayer.name == 'provinces'){

map.removeControl(populationCovidLegend);

populationLegend.addTo(map);

} else {

Map.removeControl(populationLegend);

populationCovidLegend.addTo(map);

}

});

3) How might you create a map where all map layers are toggled OFF by default? Why might this be a useful option?

Use “map %>% hideGroup(" provinces")” in the addLayersControl section to toggle off the layers by default

Having the layers toggled OFF by default will allow the user to decide what they want up and remove any information that is not relevant to what they are searching for.