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L A 458

United States Alternative Energy Production

For my final project I would like to look at the different sources of energy in the US. I will look at the solar, wind, and nuclear power sources. I will look at the type’s energy produced in different regions and the amounts of power they produce.

In this project I will show the different alternative energy sources in the US. Along with showing the locations in the us I would like to show power outputs. Regarding solar and wind energy, I want to make two maps. One that shows the power plants, and one that shows the potential of the energy source in the US. The goal of this is to show the current and potential extent of alternative energies. With the nuclear power plant data, I would like to show a map of the plants based out their energy output. I will have some user interaction buttons to focus on different areas of the US. I will use heat maps, chloropleth maps, and maybe cluster maps to showcase the data.

I will be using leaflet to make my interactive map and Mapbox for access tokens. Github will be used to host my code. I will use Brackets for my code editor.

Data sources:

I will use the geojson data sources as is and I will convert the shapefiles to geojson files using qgis like we did in exercise 3.

Wind Turbine Data: <https://www.sciencebase.gov/catalog/item/57bdfd8fe4b03fd6b7df5ff9> (Shapefile)

Wind Potential: <https://openei.org/datasets/dataset/nrel-gis-data-continental-united-states-high-resolution-direct-normal-solar-resource>

Solar Power Potential: <https://openei.org/datasets/dataset/nrel-gis-data-continental-united-states-high-resolution-concentrating-solar-power> (Shapefile)

Solar station locations: <https://energydata.info/dataset/world-solar-stations-inventory-2017> (Geojson)

Nuclear Power: <https://gist.github.com/brtknr/bdc6aace776ab7bb6d80?short_path=3523a01> (geojson)

This map shows a lot of the data that I would like to display: <https://www.eia.gov/state/maps.php>

Some of the data I am using is very large, so I may come across issues in the best way to present it to be legible and informative. My data source for nuclear power plants includes data on the whole world, so I will have to figure out a way to only use the parts of the data that I need.

