**Group 5 Project 3**

**Members:**

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3. Rafael Tem Pahs
4. Ryan Callaghan
5. Ryan Cheng

In this Project we want to analyze the clean energy production and consumption in different states in united states.

**Data sources:**

1. We will use the following link for webscrapping population data for different states.

<https://en.wikipedia.org/wiki/List_of_U.S._states_and_territories_by_population#cite_note-5>

1. Energy consumption per capita

<https://www.eia.gov/state/rankings/#/series/12>

1. Latitude longitude data for each of the states

<https://www.kaggle.com/datasets/washimahmed/usa-latlong-for-state-abbreviations>

1. Interactive chart will be built using leaflet-choropleth.

[Interactive Choropleth Map - Leaflet - a JavaScript library for interactive maps (leafletjs.com)](https://leafletjs.com/examples/choropleth/)

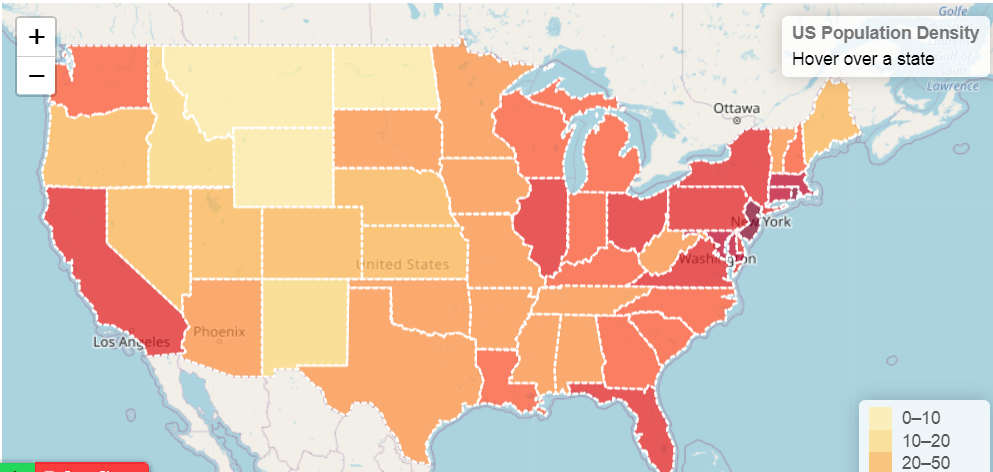
1. We will create dropdown-menu plotting selecting each stated showing different types and amount of renewable energies it produces. Following data source will be used.

<https://data.world/doe/united-states-renewable-energy>

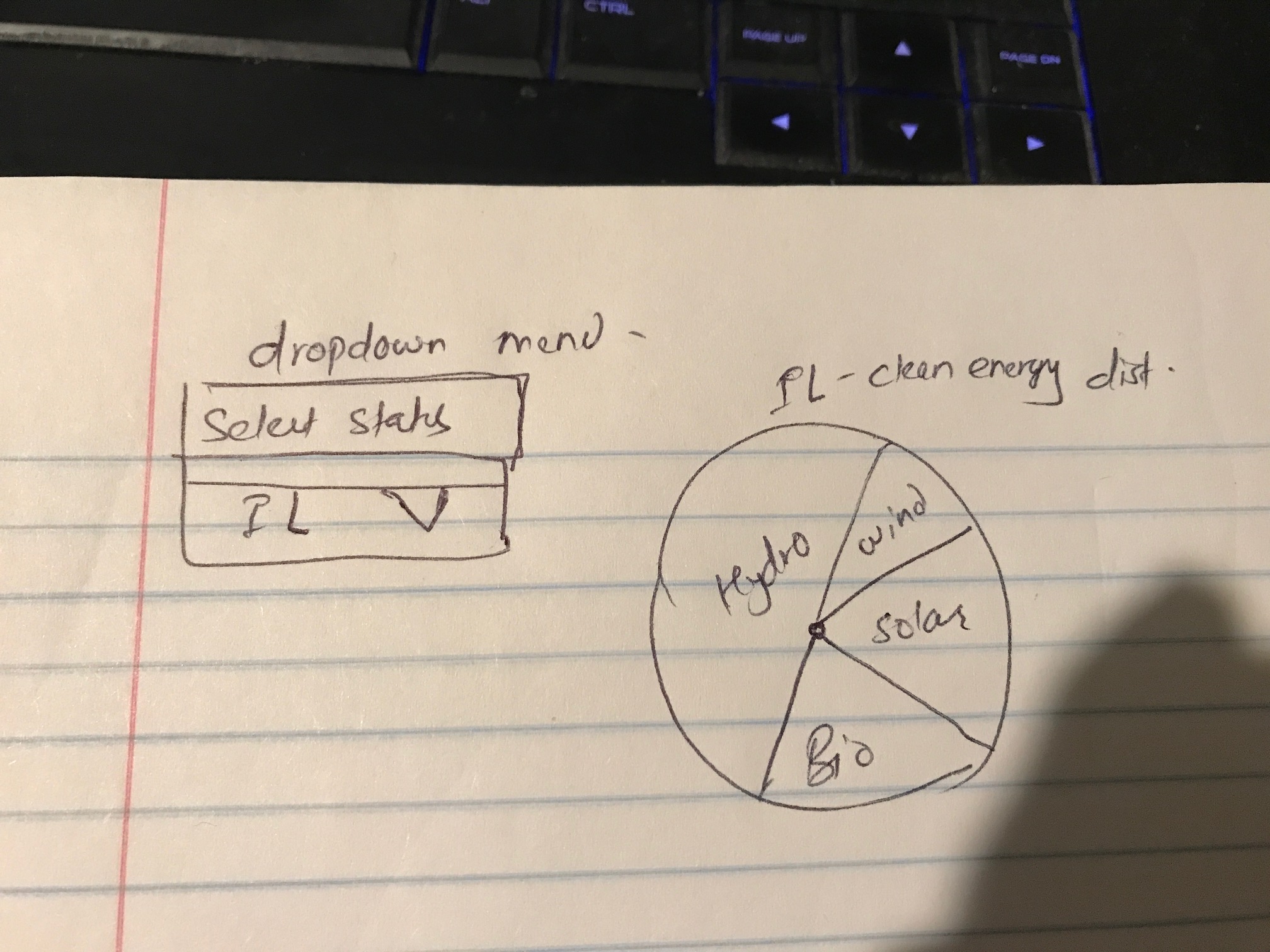
**Objectives:**

1. We want to show the clean-energy production and consumption state of each of states of united states.
2. We will create the per-capita consumption of clean energy plot using leaflet-choropleth. Something like following picture.

https://leafletjs.com/examples/choropleth/



1. We will also Create choropleth maps showing clean energy production distribution for each type of clean energy (with dropdown or layer-select option to choose each type of energy).
2. We will create dropdown-menu plotting selecting each stated showing different types and amount of renewable energies it produces.



**Work division:**

1. Artem and Rafael: Webscrapping and ETL
2. Bhumi and Ryan: Bring data from Python to postgress database.
3. Artem and Rafael: Flask App and index to publishing the data , choropleth to create state-wise visualization.
4. Bhumi and Ryan: Plotly dropdown visualization and index file.
5. Ryan Cheng: Will be determined. Support for different projects.