Project 2 - Julie Hong, SolongoTserenkhand , Liz Eli, Whitney White

**Education by State:**

The project will be continuation of our previous ETL project on Education with extension to other demographic data. For demographic data, we are considering to include state ranks, household income and size, economic aspect including unemployment rate, and crime rate.

We will use SQL for our database and use Leaflet with WebScraping/API to provide visualization of our state data.

Application: Full stack dynamic web application using Flask and deploy to the Github

**Data Sources:**

<https://www.census.gov/library/publications/2019/demo/p60-266.html>

* Income and poverty in USA 2018 → [Percentage of People in Poverty by State Using 2- and 3-Year Averages: 2015-2016 and 2017-2018](https://www2.census.gov/programs-surveys/demo/tables/p60/266/state.xls) 
  + This is an excel sheet with the data
  + Liz

[https://www.census.gov/data/developers/data-sets/cbp-nonemp-zbp/nonemp-api.2018.html.html](https://www.census.gov/data/developers/data-sets/cbp-nonemp-zbp/nonemp-api.2014.html.html)

* Nonemployer statistic API
  + This is an API pull
  + whitney

<https://worldpopulationreview.com/state-rankings/crime-rate-by-state>

* By State: Homicide Rate, Firearms Death Rate
  + Liz:

<https://www.indexmundi.com/facts/united-states/quick-facts/all-states/average-household-size#map>

* Average Household size by State US
  + Julie
* Compare income by State 2018

Solongo

<https://www.indexmundi.com/facts/united-states/quick-facts/all-states/income-per-capita#table>

* To Graduation rate by State 2018

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<https://www.indexmundi.com/facts/united-states/quick-facts/all-states/percent-of-people-25-years-and-over-with-high-school-degree-or-higher#table>

**Requirements:**

1.Your visualization must include a Python Flask–powered RESTful API, HTML/CSS, JavaScript, and SQL

2.The project will be a combination of web scraping and Leaflet or Plotly.

3.Your project should include at least one JS library that we did not cover.

Options for other JS libraries:

* <https://github.com/CartoDB/cartodb>
* <https://github.com/chartjs/Chart.js>
  + <https://www.chartjs.org/samples/latest/>
* <https://github.com/apexcharts>
  + <https://apexcharts.com/javascript-chart-demos/>
* <https://uber.github.io/react-vis/documentation/welcome-to-react-vis>
  + <https://uber.github.io/react-vis/examples/charts/responsive-vis>

4.Your project must be powered by a data set with at least 100 records.

5.Your project must include some level of user-driven interaction (e.g., menus, dropdowns, textboxes).

6.Your final visualization should ideally include at least three views