Project 1 Renewable Energy Data Analysis

Team consists of Brooke Crofts, Curtis Caile and Dave Borowski.

Intend to look at the geographical distribution of renewable energy, limited to wind and solar, and identify where they generate the most power and are most prevalent.

Outline:

1. Identify data source for renewable energy?
2. Write APIs to collect and store data
3. Identify trends by region using matplotlib/pandas
4. Heat maps of output by energy source
5. Using open weather to identify wind/sun

Questions to answer :

1. Where is wind most efficient?
2. Where is solar most efficient?
3. Understand the historic output/use of solar and wind energy
4. What country produces the most renewable/ most growth
   1. Potentially what state depending on data
5. Identify areas that have weather conditions for renewable.

Datasets:

1. <https://catalog.data.gov/dataset?organization=doe-gov&groups=climate5434>
2. NREL
3. Duke energy initiative
4. Openweather

Tasks:

1. Identify data sources for renewable energy: All
2. Write APIs to collect data: Curtis
3. Identify trends by region using matplotlib/pandas: Dave
4. Heat maps of output by energy source : Brooke
5. Using open weather to identify wind/sun: All