***Homework 6 Python-API Summary***

*Dependencies and Setup*

* Import libraries, datasets, API key, and csv file.
* Set range of latitudes and longitudes for the data.
* Incorporated citypy to determine city based on latitude and longitude – imported city py
* Set the url of the weather map API, which is where we are gathering our data from.

*Generate Cities List*

* I used Lat\_lngs for geographical information (latitude and longitude) for cities on the city list.
* Created script to generate a random set of lateral and longitude combinations.   
  Created script to Identify nearest city of each lat and lng combination
* Created script to add a city, if it is unique, to cities list using “.append”.

*Perform API Calls*

### I Created script to perform a weather check for each city using API calls via JSON. Use proper labeling of the plots using plot titles (including date of analysis) and axes labels.

* I save the plotted figures as .pngs.

### *Convert Raw Data to DataFrame*

### I wrote script to display the data frame – pd.DataFrame(weather\_info).

### I than exported the data into a .csv – ‘Weather\_info.csv’. *Plotting the Data*

* I Created scatter plot for Latitude vs. Temperature Latitude vs. Humidity
  + Latitude vs. Wind Speed plot. Latitude vs. Cloudiness.
  + I specified the data for which we wish to compare each specific plot to do this.
  + Finally, I created the title and labeled the x and y axis for each plot by using plt.title, plt.xlabel, and plt.ylabel.