**Scientific Distributions Python**

In this assignment, you will use the ability of python to query data from web. You will need to access data from <https://earthquake.usgs.gov>. This portal has a public API that can be used to access data for all seismic events for a given duration of time. For example the following url can be used to fetch data from 2016-10-03 to 2016-10-04

<https://earthquake.usgs.gov/fdsnws/event/1/query?format=geojson&starttime=2016-10-03&endtime=2016-10-04>

1. You will need to access data using this public API from 2016-10-01 to 2016-10-02.
2. After you have accessed this data set, access the ‘features’ attribute of this data set. What kind of python object is this ‘features’ attribute.
3. How many elements are in the object generated using ‘features’ attribute of the API call?
4. Access the first element of the object generated using ‘features’ attribute, what type of python object is this?
5. Your next task is to put the data that you’ve obtained by making an API call into a csv file. Following attributes should be the columns in the csv file:
6. Latitude (Hint: Treat, the first entry in coordinates attribute as Lat)
7. Longitude (Hint: Treat, the second entry in the coordinates attribute as Longitude)
8. Title : This should include the Earthquake description
9. Place: The location of the Earthquake
10. Mag: Magnitude of the earthquake
11. How many rows will be there in the csv file after all the data is extracted (Hint: Convert your json response to a pandas dataframe and the write it out as a csv file)
12. On how many occasions was earthquake magnitude more than 2?
13. How many times the earthquake has occurred in a place where the place description contains the string “California”? (Hint use the Place column in your data)
14. How many times the magnitude of earthquake was more than 5?