

# CSE355 Data Science Professional Certification

## 04-MAY-2022 Activity #7: Working with GeoPandas

Description: Perform the following task of datasets listed below using folium package in pandas and visualize the map using Dash app.

### Dataset:

1. countries of the world.csv
2. state wise centroid\_2011.csv
3. 911.csv
4. 311.csv
5. [https://raw.githubusercontent.com/giswqs/data/main/world/world\\_cities.csv](https://raw.githubusercontent.com/giswqs/data/main/world/world_cities.csv)

Task	Description
1.	Create a separate map with marker describing the centroid of state using the dataset <b>“state wise centroid_2011.csv”</b> and <b>“countries of the world.csv”</b>
2.	Read the data from the url : <a href="https://raw.githubusercontent.com/giswqs/data/main/world/world_cities.csv">https://raw.githubusercontent.com/giswqs/data/main/world/world_cities.csv</a> Using markers show the population of the cities
3.	Run Dash to visualize the map at port 8050.
4.	A subset of 311 service requests calls from NYC Open data is available in a flat file format <b>“311.csv”</b> , Fix the improper zip code. Clean the appropriate columns and normalize 'N/A' and 'NO CLUE' into regular 'nan' values.
5.	911 is an emergency telephone number of United States. Given a subset of 911 Emergency calls in a flat file format <b>“911.csv”</b> , the task of a data scientist is defined below. a. Truncate all zip code to length 5, set 00000 zip codes to 'nan', and make everything string. c. Using appropriate markers locate the five services reported by the public agencies of New York in the year 2013 to visualize on open street map whose geo coordinate is [40.2978759, -75.5812935]