911 Call Data Analysis

Practice Project

edureka!

Domain – Data Analysis

Focus – Data Analysis and Visualization

Overview:
Congratulations!!!! for making it so far. This is the Practice Project for Python Programming Course and here we will use all the concepts learned so far in this course.

Business Requirement:
For this Project, we will be analyzing 911 call data. The dataset is available

on the LMS .

This data is from Montgomery Country in the Pennsylvania State USA.

911 is the most important social security feature of the USA. It is the single point of contact, that citizens can use in case of any emergencies such as crime, medical, traffic, fire, etc.

As a data analyst, you must analyze and visualize the data and answer the questions in the section **Approach to Solve**

Key issues:
Data should be analyzed accurately

Data Description:
Approx 260K records – file 911.csv
Fields in Data are:

- lat: String variable, Latitude
- lng: String variable, Longitude
- desc: String variable, Description of the Emergency Call
- zip: String variable, Zipcode
- title: String variable, Title
- timeStamp: String variable, YYYY-MM-DD HH:MM:SS
- twp: String variable, Township
- addr: String variable, Address
- e: String variable, Dummy variable (always 1)

Business Benefits:
Better utilization of resources based on the density of 911 calls.

Approach to Solve:
You nust to use fundamentals covered till Module 8 and answer the following 8 questions

- Compute - What are the top 10 Zipcodes for 911 and Question 1: Are Zipcodes 19446and 19090 presents?
- Compute - What are the top 4 townships (twp) for 911 calls and Question 2: Which ofthe following township are not present? -- LOWER POTTSGROVE, NORRISTOWN, HORSHAM, ABINGTON
- Compute - Create new features and Question 3: What is the most common reason for 911 calls based on the Reason Column? Which comes second
- Compute - Plot barchart using matplot for 911 calls by Reason and Question 4: How canyou plot the bars horizontally?
- Do data manipulation and Question 5: Which day got maximum calls for EMS and How many?
- Compute - Create a countplot of the Day of Week column with the hue based on the Reason column and Question 6: On which day traffic calls were lowest?
- Compute - Create a countplot month-wise -- Question 7: Which month saw the highestcalls for fire?
- Compute - Create Web Map for Traffic Calls and Question 8: Why do some areas seem tohave lower or almost zero traffic calls? Hint: Zoom the map

Answers:

1. Yes
2. LOWER POTTSGROVE, HORSHAM
3. EMS -- 133234, Traffic – 93400
4. Change plt.bar to plt.barh
5. Friday -- 19938
6. As expected, -- Sunday -- don't you prefer to remain inside :-)
7. June -- Barbeque and Holidays time?
8. These are areas like airports, State Park, etc.