“midterm_data.csv”

EDA Midterm Data

Description

This is a countrywide (USA) traffic and accident dataset, though we have **severely** modified the sample of this data for the purposes of our class midterm.

Background: The data is continuously being collected from February 2016, using several data providers, including two APIs which provide streaming traffic event data. These APIs broadcast traffic events captured by a variety of entities, such as the US and state departments of transportation, law enforcement agencies, traffic cameras, and traffic sensors within the road-networks.

Can you find graphics to copy online? No, we ask you submit *original* work. It is true that this is publicly available data and thus people have used this dataset elsewhere and you could spend some time finding examples of its use online. I intentionally made changes to the data to deter this. Additionally, we chose a data set that was ‘real’ but that didn’t offer a lot of interesting EDA examples online. **IN SUM**, **do not waste time trying to copy someone else’s use of the data. Show us your step by step exploration of the data. That is the entire goal of the exam.**

Below is a ‘codebook’ that describes the variables in the data to aid you in interpreting your work.

Attribute	Description
ID	This is a unique identifier of the accident record.
Source	Indicates source of the accident report (i.e. the API which reported the accident.).
TMC	A traffic accident may have a Traffic Message Channel (TMC) code which provides more detailed description of the event.
Severity	Shows the severity of the accident, a number between 1 and 4, where 1 indicates the least impact on traffic (i.e., short delay as a result of the accident) and 4 indicates a significant impact on traffic (i.e., long delay).
Start_Time	Shows start time of the accident in local time zone.
End_Time	Shows end time of the accident in local time zone. End time here refers to when the impact of accident on traffic flow was dismissed.
Distance(mi)	The length of the road extent affected by the accident.
Description	Shows natural language description of the accident.
Number	Shows the street number in address field.
Street	Shows the street name in address field.
Side	Shows the relative side of the street (Right/Left) in address field.
City	Shows the city in address field.
County	Shows the county in address field.
State	Shows the state in address field.
Country	Shows the country in address field.
Timezone	Shows timezone based on the location of the accident (eastern, central, etc.).
Airport_Code	Denotes an airport-based weather station which is the closest one to location of the accident.
Weather_Timestamp	Shows the time-stamp of weather observation record (in local time).

Temperature(F)	Shows the temperature (in Fahrenheit).
Wind_Chill(F)	Shows the wind chill (in Fahrenheit).
Humidity(%)	Shows the humidity (in percentage).
Pressure(in)	Shows the air pressure (in inches).
Visibility(mi)	Shows visibility (in miles).
Wind_Direction	Shows wind direction.
Wind_Speed(mph)	Shows wind speed (in miles per hour).
Precipitation(in)	Shows precipitation amount in inches, if there is any.
Weather_Condition	Shows the weather condition (rain, snow, thunderstorm, fog, etc.)
Amenity	A POI annotation which indicates presence of amenity in a nearby location.
Bump	A POI annotation which indicates presence of speed bump or hump in a nearby location.
Crossing	A POI annotation which indicates presence of crossing in a nearby location.
Give_Way	A POI annotation which indicates presence of give_way in a nearby location.
Junction	A POI annotation which indicates presence of junction in a nearby location.
No_Exit	A POI annotation which indicates presence of no_exit in a nearby location.
Railway	A POI annotation which indicates presence of railway in a nearby location.
Roundabout	A POI annotation which indicates presence of roundabout in a nearby location.
Station	A POI annotation which indicates presence of station in a nearby location.

Stop	A POI annotation which indicates presence of stop in a nearby location.
Traffic_Calming	A POI annotation which indicates presence of traffic_calming in a nearby location.
Traffic_Signal	A POI annotation which indicates presence of traffic_signal in a nearby location.
Turning_Loop	A POI annotation which indicates presence of turning_loop in a nearby location.
Sunrise_Sunset	Shows the period of day (i.e. day or night) based on sunrise/sunset.
Civil_Twilight	Shows the period of day (i.e. day or night) based on civil twilight.
Nautical_Twilight	Shows the period of day (i.e. day or night) based on nautical twilight.
Astronomical_Twilight	Shows the period of day (i.e. day or night) based on astronomical twilight.