

## Data

To solve the problem, we need the following data:

- List of accidents in New York State
- Date, time, duration and location of each accident
- Cause and severity of each accident

In order to meet these criteria, the source of dataset selected is given below:

<https://www.kaggle.com/sobhanmoosavi/us-accidents>

the above dataset is a countrywide traffic accident dataset, which covers 49 states of the United States with 49 attributes. It has data from February 2016 to June 2020. The data set is in the form of csv file. So the dataset is should be prepared by removing the unnecessary data. The records from New York State should be selected and the features or attributes of dataset should be identified. The following features or attributes are selected from the dataset:

#	Attribute	Description	Nullable
1	ID	This is a unique identifier of the accident record.	No
2	Source	Indicates source of the accident report	No
3	TMC	A traffic accident may have a Traffic Message Channel (TMC) code which provides more detailed description of the event.	Yes
4	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).	No
5	Start_Lng	Shows longitude in GPS coordinate of the start point.	No
6	Start_Lat	Shows latitude in GPS coordinate of the start point.	No
7	Distance	The length of the road extent affected by the accident.	No
8	Side	Shows the relative side of the street (Right/Left) in address field.	Yes
9	City	Shows the city in address field.	Yes
10	County	Shows the county in address field.	Yes
11	State	Shows the state in address field.	Yes
12	Timezone	Shows timezone based on the location of the accident (eastern, central, etc.).	Yes
13	Temperature(F)	Shows the temperature (in Fahrenheit).	Yes
14	Humidity(%)	Shows the humidity (in percentage).	Yes
15	Pressure(in)	Shows the air pressure (in inches).	Yes
16	Visibility(mi)	Shows visibility (in miles).	Yes

17	Wind_Direction	Shows wind direction.	Yes
18	Weather_Condition	Shows the weather condition (rain, snow, thunderstorm, fog, etc.)	Yes
19	Amenity	A POI annotation which indicates presence of amenity in a nearby location.	No
20	Bump	A POI annotation which indicates presence of speed bump or hump in a nearby location.	No
21	Crossing	A POI annotation which indicates presence of crossing in a nearby location.	No
22	Give_Way	A POI annotation which indicates presence of give_way in a nearby location.	No
23	Junction	A POI annotation which indicates presence of junction in a nearby location.	No
24	No_Exit	A POI annotation which indicates presence of no_exit in a nearby location.	No
25	Railway	A POI annotation which indicates presence of railway in a nearby location.	No
26	Roundabout	A POI annotation which indicates presence of roundabout in a nearby location.	No
27	Station	A POI annotation which indicates presence of Station in a nearby location.	No
28	Stop	A POI annotation which indicates presence of stop in a nearby location.	No
29	Traffic_Calming	A POI annotation which indicates presence of traffic calming in a nearby location.	No
30	Traffic_Signal	A POI annotation which indicates presence of traffic signal in a nearby location.	No
31	Turning_Loop	A POI annotation which indicates presence of turning loop in a nearby location.	No
32	Sunrise_Sunset	Shows the period of day (i.e. day or night) based on sunrise/sunset.	Yes
33	Hour	Shows the hour at accident	No
34	Weekday	Shows weekday of accident	No
35	Time_Duration(min)	Shows duration of accident	No