Problem:
New York City has millions of people, with crimes that occur at any time of day and any place. With how spontaneous crimes are by their very nature, the first response to a crime being spotted by a witness is to call 911 and report the crime. While the act of calling is important, the contents of the call can be extremely varied, from calm,brief and informative to hysterical, long, and providing little to no information. This can cause delays in assistance at the scene of the crime which could be the difference between life and death for potential victims.

Client:
911 dispatchers could use this model to improve call times, which would directly improve response times and save more lives in the process. With the stress of the job of 911 dispatcher, and the consistency of calls throughout the city, and tool that could alleviate some of the pressure by providing a tool that could analyze some brief, quick information just from the location of the call, time it came in, and other features could help quicken the call and even develop what response to take depending on the information.

Data Wrangling:
The data was obtained from NYC Open Data program. Link:
The data contains information about 911 calls that were directed to the NYPD, from 2006 to 2015. It includes information of the time and date the call was received as well as the location. The data also includes the precinct the call was sent to and what type of crime it was as well as if it was a felony or misdemeanor.
I joined the date and time columns for calls received and sent respectively. Then I converted the columns from strings to datetime. I also only used calls that went to the NYPD, and dropped columns that contained strings about the description of the location of the crime that took place. Boroughs were reassigned numbers and new columns for months, days, years, hours, minutes and seconds were made from the datetime column. I also used the only used rows that contained the top 20 most common crimes and assigned a number for each type of crime.