Final Project :/

Data Set - Crime from 2001 to Present (in Chicago)

**Present 3 Problem Statements:**

* 1. Trump Says Chicago is a huge Problem Area. With the Given information, which dates from 2001 - 2015, I will attempt to find out how many arrests were made in regards to simple and domestic battery.
  2. Catch and Release with no Preventative actions.
  3. What time of year do the Officers Arrest the most amount of citizens, and can we predict when high volume arrests will occur.

**Research Design Problem Statement & Outline:**

From Chicago's Wicker Park area, we will use the public arrest record to attempt to predict the next high volume arrest 'season' will be. Do we see a seasonal Trim? If so, we ask what are some of the preventative measures the Police can do to lower the public and domestic fights.

* 1. Finding the Problem
  2. Acquiring the Data
     1. Kaggle
        1. Chicago - 15 year long data source
  3. Parsing the Data
     1. After Reading in the Data I found that I had 6.2million rows of Data
     2. Explored the data, location, coordinates, Types of Arrests
  4. Mining the Data
     1. I took a fraction of that data (.01) to work with
     2. Removed the DateTime format from the Date column to focus more on the 'Date' -- hopefully to find some seasonality
     3. Removed unneeded columns / unnecessary data

* 1. Refining the Data
     1. Identified that 'Simple' and defined it as Battery
     2. Because the Battery category only left ~7200 rows of data, transformed the category to include Domestic Batteries as well
  2. Build a Model
     1. Selected the TimeSeries
        1. Realized that Target was then turned into a Binary… Rolling mean, Not Applicable; maybe ARMA.
        2. Running into a Problem :

TypeError: Only valid with DatetimeIndex, TimedeltaIndex or PeriodIndex, but got an instance of 'Index'

* 1. All though I had Transformed the Date Column into a datetime64[ns] I still received this issue
  2. MUST sort the dates from pandas
  3. Please help me finish this Model
  4. Present the Model