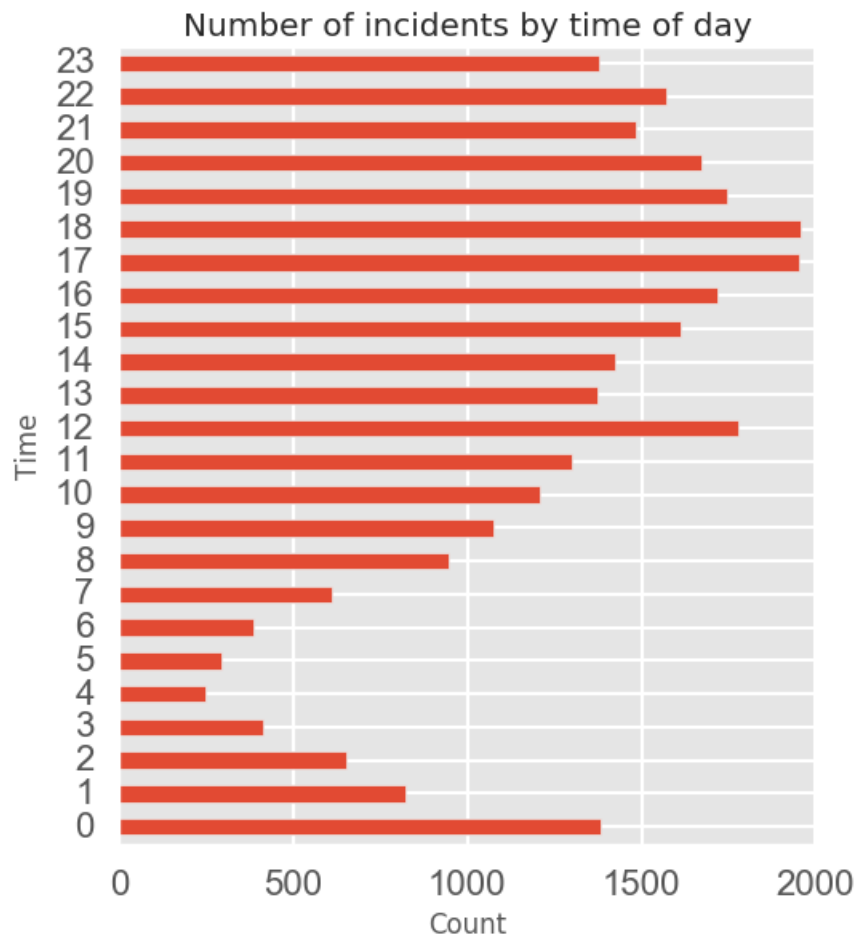


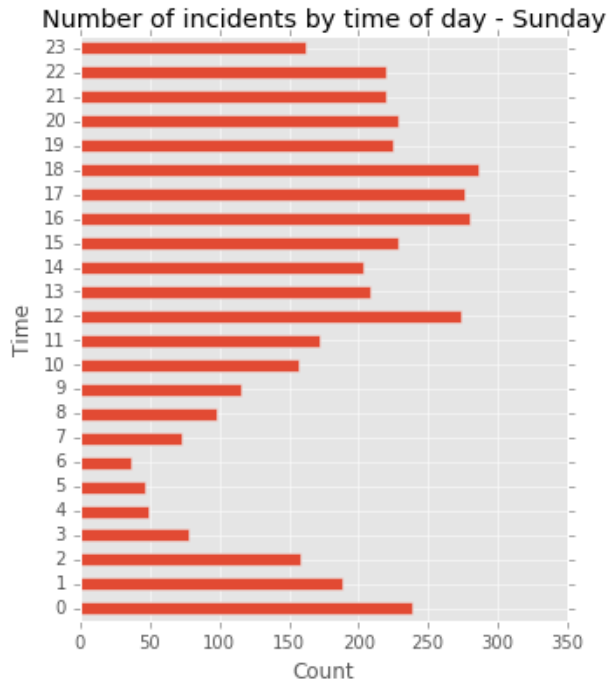
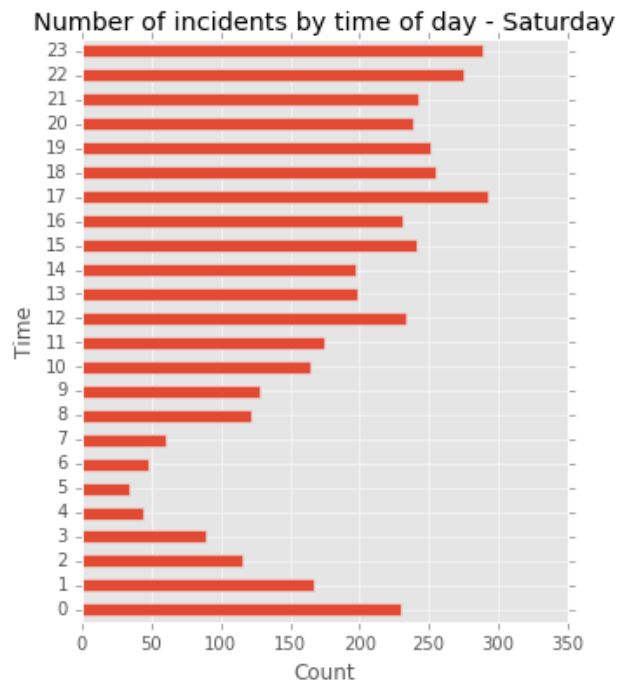
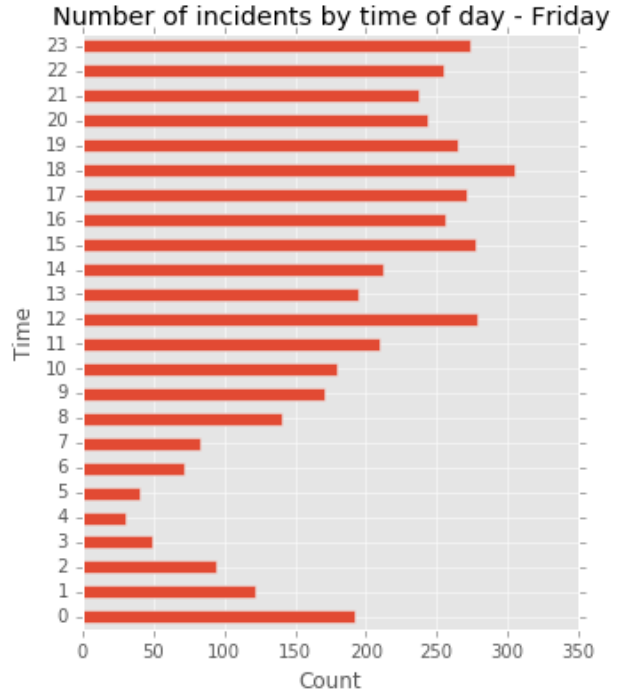
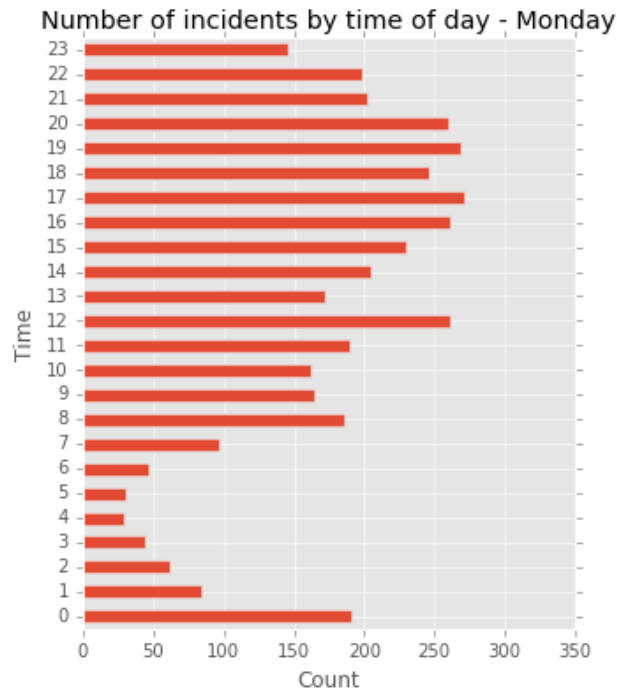
Criminal Incident Analysis - San Francisco

In this analysis, San Francisco Summer 2014 dataset is used.

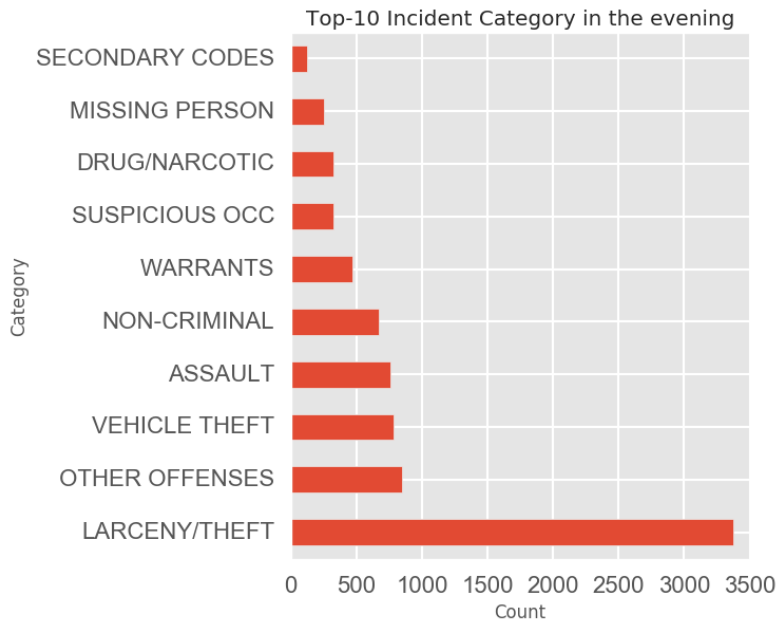
Data consists of incidents report with types of criminal incidents during the 3-month period (June, July, August) in summer of 2014.

From the data, we can see that overall criminal incident occurs at its peak during 17:00-19:00 and has high another minor peak at noon. On working days, those should be the time when most of people are outside commuting from office/ school back to their homes or taking lunch break at noon. It is less likely to occur during early morning at 4 am on working days and 5-6am on weekends, possibly when everyone are sleeping in their homes.

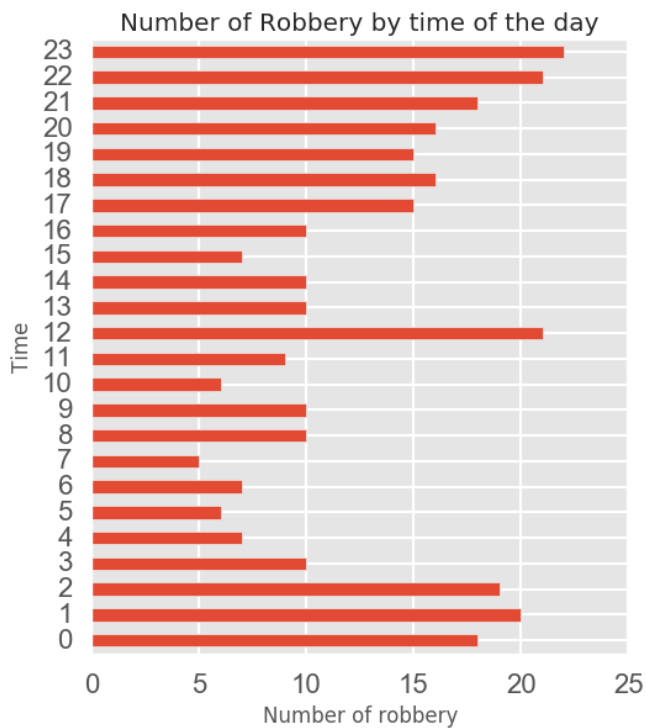




There is high incident occurring on Friday and Saturday at late night, comparing to other day of week. This is possibly the time when people are outside their homes for dinner or parties and returning to their homes late.



Looking at the tendency that crime rate is usually high in the evening. The top ten incidents, which are most common in the evening around 18:00 onwards until 22:00 are shown in figure below. Theft is the most commonly committed crimes. Others followers are offensesm vehicle theft and assault.



By definition (<http://www.criminaldefenselawyer.com>) , theft is taking something that doesn't belong to you, but a robbery is taking something from a person and using force, or the threat of force, to do it.

From bar graph on the left, we see that robberies are most common around midnight starting from 22:00 until 2:00 and another interesting peak is at noon.

Incidents vary by neighborhood in San Francisco. From scatter plot below, the area with high incident number of crime is the upper right of the city along Market St. Using Scikit Learn KMeans model with $k = 7$ to find the centroids of the incidents, they are pinpointed by red or orange marks. I can locate the center of the high crime area (37.7865509 -122.4087604) at the Union Square, which is said to be bustling public square in the heart of the city surrounded by shops, theaters, hotels & restaurants. Robberies or thefts scatter plot also shows accordingly the same location.

