San Francisco crimes pandas exercise

Preliminaries

- Read the file. The index should be the *Dates* column, and it should be a *DateTimeIndex* type.
- Remove records of the categories 'OTHER OFFENSES' and 'NON-CRIMINAL', and also categories with less than 100 records.
- Draw a scatter plot of X and Y, and remove the outliers based on the graph.
    - Challenge: Color the districts

Simple questions

- How many unique values are there in each column?
- Sort the categories by their frequency.
- Create a DataFrame, counting for each category (index) the various resolutions (columns).
- Make a bar plot showing how many Vandalism crimes happened in each day of the week.
- Make a Pivot table showing for each day-of-week and hour-of-day the number of vehicle thefts. Plot it.

Interesting questions

- Use a bar plot to show for each category how many crimes had been on a street corner and many had not. Then find the category with the highest ratio of street-corner crimes
- The resolution of some crimes was 'PSYCHOPATHIC CASE'. Sort the categories by the ratio of such cases from the entire category.
- What is the street with the highest number of burgleries?
- For the 5 most frequent categories, draw a plot of the number of cases per month.
    - Note: To answer this question you should explore and use the DatetimeIndex capabilities. Use the method Series.resample().