Now that we've looked at the column names more closely, here are some potentially interesting ones that popped out:

* JJ - Indicates whether the school is part of a [juvenile justice facility](https://en.wikipedia.org/wiki/Youth_detention_center), or youth prison.
* SCH\_STATUS\_MAGNET - Indicates whether the school is a [magnet school](https://en.wikipedia.org/wiki/Magnet_school), an advanced school for students who achieve high scores on certain tests.

We can dig around for interesting patterns here by using [Series.value\_counts()](http://pandas.pydata.org/pandas-docs/stable/generated/pandas.Series.value_counts.html" \t "_blank) to find unique values in each column. This will tell us how many schools are juvenile justice facilities or magnet schools.

We can also count how many students are in juvenile justice facilities by using the [pandas.pivot\_table()](http://pandas.pydata.org/pandas-docs/stable/generated/pandas.pivot_table.html" \t "_blank) function to create a pivot table. Building a pivot table will allow us to aggregate TOT\_ENR\_M and TOT\_ENR\_F (which record school enrollment by gender) by JJ and SCH\_STATUS\_MAGNET. This will count up how many students are in magnet schools or juvenile justice facilities.

The Python code below, for example, will create a pivot table that counts the total number of male and female students in juvenile justice facilities:



import pandas as pd

​

pd.pivot\_table(data, values=["TOT\_ENR\_M", "TOT\_ENR\_F"], index="JJ", aggfunc="sum")

Instructions

* Create a new file named exploration.py.
* In exploration.py:
  + Read CRDC2013\_14.csv into a pandas dataframe named data.
    - Be sure to specify the keyword argument encoding="Latin-1" so that pandas reads the file in properly.
  + Name the value\_counts method on the JJ and SCH\_STATUS\_MAGNET columns to count the number of schools that fall within each category.
    - Print out the results so you see them when you run the script.
* Run exploration.py.
* Edit exploration.py:
  + Construct two pivot tables that aggregate TOT\_ENR\_M and TOT\_ENR\_F based on JJ and SCH\_STATUS\_MAGNET.
    - Print out the results so you see them when you run the script.
* Run exploration.py.
* Create a new file named findings.txt that summarizes any interesting patterns you observe.