RenameColumns -> UFO Dataset

November 16, 2016

```
In [1]: import pandas as pd
In [2]: ufo = pd.read_csv('http://bit.ly/uforeports')
In [3]: ufo.head()
Out [3]:
                           City Colors Reported Shape Reported State
                                                                                   T:
                         Ithaca
                                             NaN
                                                       TRIANGLE
                                                                   NY
                                                                        6/1/1930 22:
                                                                   NJ 6/30/1930 20:
        1
                    Willingboro
                                             NaN
                                                          OTHER
        2
                        Holyoke
                                                                   CO 2/15/1931 14:
                                             NaN
                                                           OVAL
        3
                                                                        6/1/1931 13:
                        Abilene
                                             NaN
                                                           DISK
                                                                   KS
                                                                   NY 4/18/1933 19:
        4 New York Worlds Fair
                                             NaN
                                                          LIGHT
In [5]: ufo.columns # list of Columns listed
Out[5]: Index(['City', 'Colors Reported', 'Shape Reported', 'State', 'Time'], dtype
In [9]: ufo.rename( columns = {'Colors Reported' : 'Colors_Reported', 'Shape Report
        # rename old : new
        # inplace => pandas.DataFrame.drop => if True, do opeartion inplace and rea
In [10]: ufo.columns # returns columns as needed
Out[10]: Index(['City', 'Colors_Reported', 'Shape_Reported', 'State', 'Time'], dty
In [11]: # rename everything => create Python list of strings
         ufo_cols = ['city', 'colors reported','shape reported','state', 'time']
In [12]: ufo.columns = ufo_cols # overwriting old column names with new ones (lower
In [13]: ufo.head()
Out [13]:
                            city colors reported shape reported state
         0
                          Ithaca
                                              NaN
                                                        TRIANGLE
                                                                    NY
                                                                          6/1/1930 22
         1
                     Willingboro
                                              NaN
                                                           OTHER
                                                                    NJ
                                                                         6/30/1930 20
         2
                                                                         2/15/1931 14
                         Holyoke
                                              NaN
                                                            OVAL
                                                                    CO
         3
                         Abilene
                                                                         6/1/1931 13
                                              NaN
                                                            DISK
                                                                    KS
         4 New York Worlds Fair
                                                                         4/18/1933 19
                                              NaN
                                                           LIGHT
                                                                    NY
```

In [16]: ufo = pd.read_csv('http://bit.ly/uforeports', names=ufo_cols, header=0) #a

```
In [15]: ufo.head()
Out [15]:
                                                                                                                                                                                                          city colors reported shape reported state
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NY 6/1/1930 22
                                                                                                                                                                                                                                                                                                                                         NaN
                                                                                                                                                                                                                                                                                                                                                                                                                   TRIANGLE
                                                                  1
                                                                                                                                                          Willingboro
                                                                                                                                                                                                                                                                                                                                         NaN
                                                                                                                                                                                                                                                                                                                                                                                                                                          OTHER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NJ 6/30/1930 20
                                                                  2
                                                                                                                                                                                      Holyoke
                                                                                                                                                                                                                                                                                                                                          NaN
                                                                                                                                                                                                                                                                                                                                                                                                                                                 OVAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CO 2/15/1931 14
                                                                  3
                                                                                                                                                                                       Abilene
                                                                                                                                                                                                                                                                                                                                          NaN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            KS
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                                                                  4 New York Worlds Fair
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                                                                                                                                                                                                                                                                                                                                          NaN
                                                                                                                                                                                                                                                                                                                                                                                                                                          LIGHT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NY
In [20]: ufo.columns
Out[20]: Index(['city', 'colors_reported', 'shape_reported', 'state', 'time'], dtype_reported', 'state', 'time', 'time'], dtype_reported', 'state', 'time', 
In [18]: ufo.columns = ufo.columns.str.replace(' ', '_') #replace all spaces in hea
In [19]: ufo.columns # check that all spaces in column names were replaced with '_
Out[19]: Index(['city', 'colors_reported', 'shape_reported', 'state', 'time'], dtype_reported', 'state', 'time', 'time'], dtype_reported', 'state', 'time', 'time',
In [ ]:
```