

Import some libraries. Right now we're using **scipy** and **pearsonr** from **scipy.stats.stats**

```
In [1]: import numpy as np
import pandas as pd
import seaborn as sb

import matplotlib.pyplot as plt
from pylab import rcParams

import scipy
from scipy.stats.stats import pearsonr
```

Configuration canvas

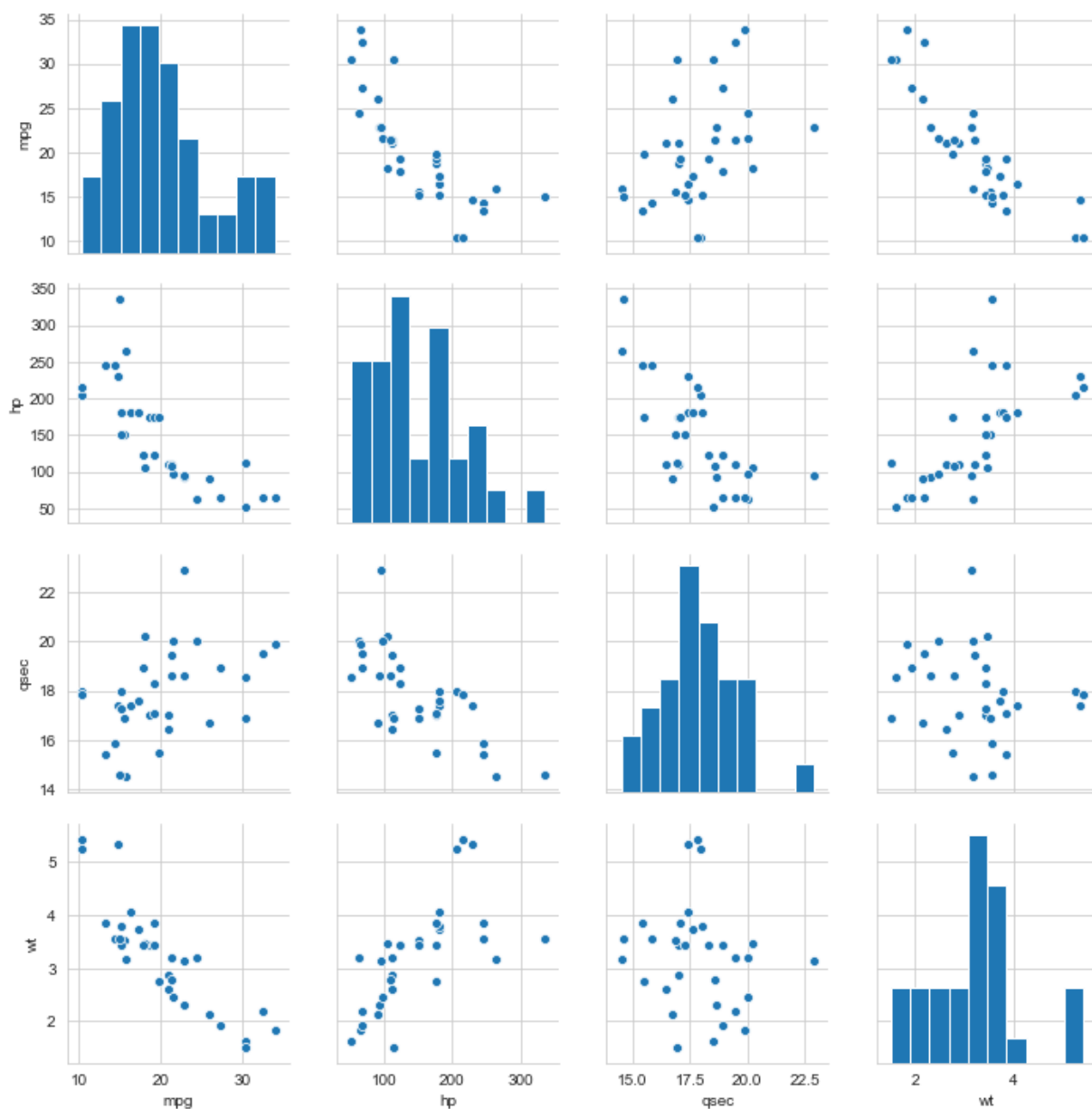
```
In [2]: %matplotlib inline
rcParams['figure.figsize'] = 5,4
sb.set_style('whitegrid')
```

Read csv document from local computer, then make a pairplot to see distribution value visualization

```
In [4]: address = 'C:/Users/muham/mtcars.csv'
cars = pd.read_csv(address)
cars.columns = ['car_names', 'mpg', 'cyl', 'disp', 'hp', 'drat', 'wt', 'qsec', 'v'

x = cars[['mpg', 'hp', 'qsec', 'wt']]
sb.pairplot(x)
```

Out[4]: <seaborn.axisgrid.PairGrid at 0x65d4c30>



We're about to count Pearson Correlation Coefficient. In Python, we can call corr() function to count it

```
In [10]: corr = x.corr()  
corr
```

Out[10]:

	mpg	hp	qsec	wt
mpg	1.000000	-0.776168	0.418684	-0.867659
hp	-0.776168	1.000000	-0.708223	0.658748
qsec	0.418684	-0.708223	1.000000	-0.174716
wt	-0.867659	0.658748	-0.174716	1.000000

Now, we make some heatmap to see distribution value of correlation of those data. To make it in Python, we can make heatmap() function with 3 parameters which are the data, xticklabels and yticklabels

```
In [11]: sb.heatmap(corr, xticklabels=corr.columns.values, yticklabels=corr.columns.values)
```

Out[11]: <matplotlib.axes._subplots.AxesSubplot at 0xef160b0>

