Import required libraries

In [2]:
```
import numpy as np
import pandas as pd
import seaborn as sns
import matplotlib.pyplot as plt
```

Get mtcars data from GitHub

In [3]:
```
mtcars = pd.read_csv('https://gist.githubusercontent.com/seankross/a412dfbd88b3db70b74b/raw/5f23f993cd87c283ce766e7ac6b329ee7cc2e1d1/mtcars.csv')
file = mtcars
filepath = 'https://gist.githubusercontent.com/seankross/a412dfbd88b3db70b74b/raw/5f23f993cd87c283ce766e7ac6b329ee7cc2e1d1/mtcars.csv'
```

Create custom class to read a csv file in pandas; Select 2 rows to be displayed.

In [14]:
```
class DataRead:
    def __init__(self, filepath):
        import pandas as pd
        self.data = pd.read_csv(filepath)

    def ShowRow():
        print("The dataset has {nrow:n} rows".format(nrow = int(DataRead(filepath).data.shape[0])))
        print('Remember that index starts from 0')
        print(" ")
        row1 = int(input('Enter the first row to be displayed: '))
        row2 = int(input('Enter the second row to be displayed: '))
        print(" ")
        print(DataRead(filepath).data.iloc[row1])
        print(" ")
        print(DataRead(filepath).data.iloc[row2])
```

Function for correlation plot.

In [15]:
```
class DataRead2(DataRead):

    def CorrelationPlot(self):
        import matplotlib.pyplot as plt
        import seaborn as sns
        sns.heatmap(self.data.corr())
        plt.show()

    def ShowRow():
        print("The dataset has {nrow:n} rows".format(nrow = int(Dat
aRead(filepath).data.shape[0])))
        print('Remember that index starts from 0')
        print(" ")
        row1 = int(input('Enter the first row to be displayed: '))
        row2 = int(input('Enter the second row to be displayed: '))
        row3 = int(input('Enter the third row to be displayed: '))
        print(" ")
        print(DataRead(filepath).data.iloc[row1])
        print(" ")
        print(DataRead(filepath).data.iloc[row2])
        print(" ")
        print(DataRead(filepath).data.iloc[row3])
```

Input Values 1: Reading the file:

In [12]:
```
filepath = 'https://gist.githubusercontent.com/seankross/a412dfbd88
b3db70b74b/raw/5f23f993cd87c283ce766e7ac6b329ee7cc2e1d1/mtcars.csv'
DataRead(filepath).data.head(10)
```

Out[12]:

	model	mpg	cyl	disp	hp	drat	wt	qsec	vs	am	gear	carb
0	Mazda RX4	21.0	6	160.0	110	3.90	2.620	16.46	0	1	4	4
1	Mazda RX4 Wag	21.0	6	160.0	110	3.90	2.875	17.02	0	1	4	4
2	Datsun 710	22.8	4	108.0	93	3.85	2.320	18.61	1	1	4	1
3	Hornet 4 Drive	21.4	6	258.0	110	3.08	3.215	19.44	1	0	3	1
4	Hornet Sportabout	18.7	8	360.0	175	3.15	3.440	17.02	0	0	3	2
5	Valiant	18.1	6	225.0	105	2.76	3.460	20.22	1	0	3	1
6	Duster 360	14.3	8	360.0	245	3.21	3.570	15.84	0	0	3	4
7	Merc 240D	24.4	4	146.7	62	3.69	3.190	20.00	1	0	4	2
8	Merc 230	22.8	4	140.8	95	3.92	3.150	22.90	1	0	4	2
9	Merc 280	19.2	6	167.6	123	3.92	3.440	18.30	1	0	4	4

Input Values 2: Selecting Rows:

In [16]:
```
DataRead.ShowRow()
```

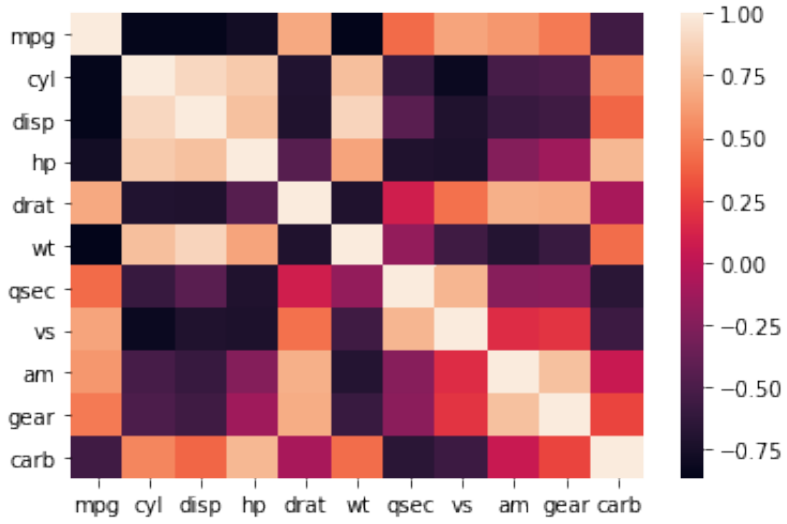
```
The dataset has 32 rows
Remember that index starts from 0


model    Hornet Sportabout
mpg                   18.7
cyl                      8
disp                   360
hp                     175
drat                  3.15
wt                    3.44
qsec                 17.02
vs                       0
am                       0
gear                     3
carb                     2
Name: 4, dtype: object

model    Merc 240D
mpg           24.4
cyl              4
disp         146.7
hp              62
drat          3.69
wt            3.19
qsec            20
vs               1
am               0
gear             4
carb             2
Name: 7, dtype: object
```

Plot 1: Correlation between variables

In [17]:
```
DataRead2(filepath).CorrelationPlot()
```



A DataRead2 function to select 3 rows:

In [18]:
```
DataRead2.ShowRow()
```

```
The dataset has 32 rows
Remember that index starts from 0


model    Hornet Sportabout
mpg                   18.7
cyl                      8
disp                   360
hp                     175
drat                  3.15
wt                    3.44
qsec                 17.02
vs                       0
am                       0
gear                     3
carb                     2
Name: 4, dtype: object

model    Merc 240D
mpg           24.4
cyl              4
disp         146.7
hp              62
drat          3.69
wt            3.19
qsec            20
vs               1
am               0
gear             4
carb             2
Name: 7, dtype: object

model    Merc 280
mpg          19.2
cyl             6
disp        167.6
hp            123
drat         3.92
wt           3.44
qsec         18.3
vs              1
am              0
gear            4
carb            4
Name: 9, dtype: object
```

In [ ]:
```

```