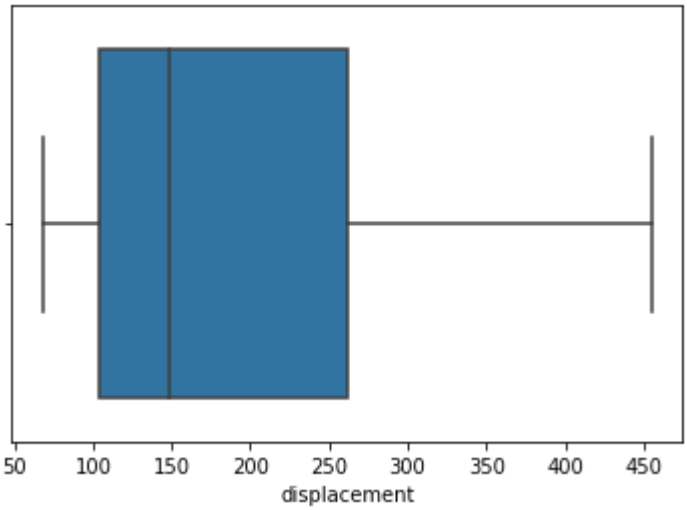
Boxplot, Histogram, ScatterPlot and TwoWayCrossTabulation

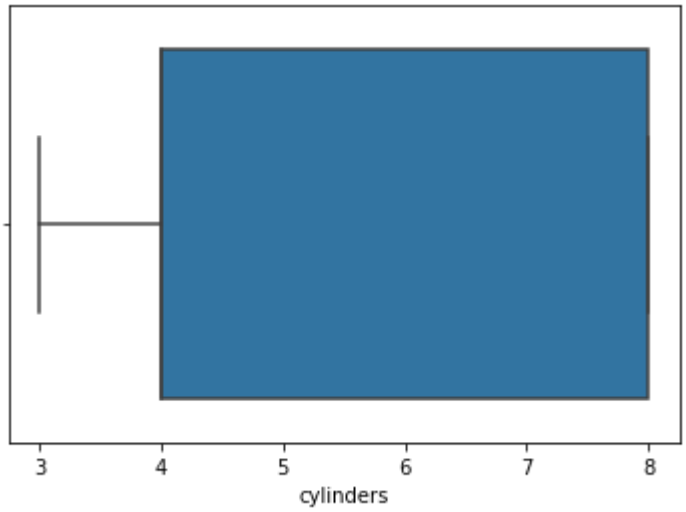
In [12]:

```
import pandas as pd
import seaborn as sn

url = "C:/Users/Prerna/Desktop/ML_jupyter_notenooks/datasets/auto-mpg.csv"
df = pd.read_csv(url)

df.head(5)

#Box Plot of Displacement

box_plot = sn.boxplot(df['displacement'])


```



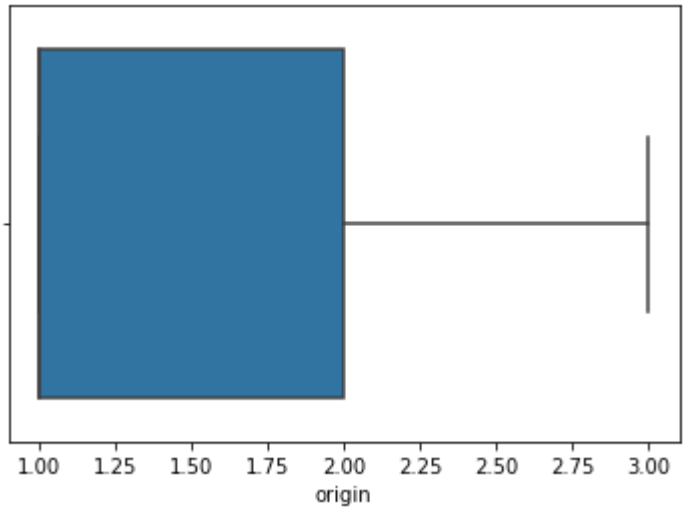
In [6]:

```
box_plot_cylinder = sn.boxplot(df['cylinders'])
```



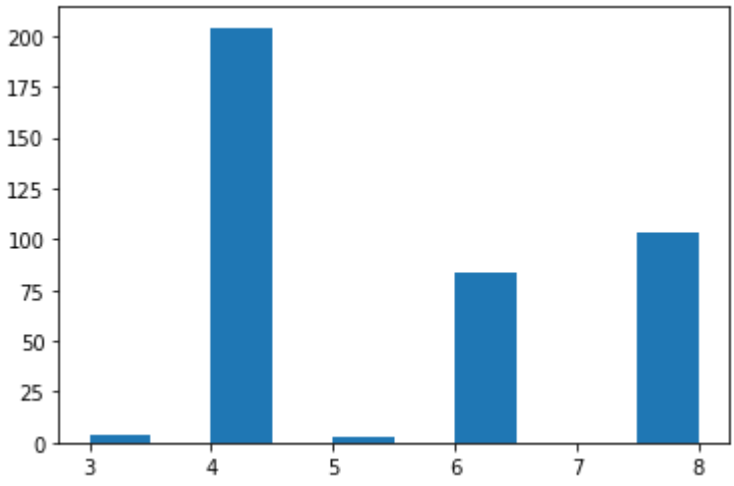
In [7]:

```
box_plot_origin = sn.boxplot(df['origin'])
```



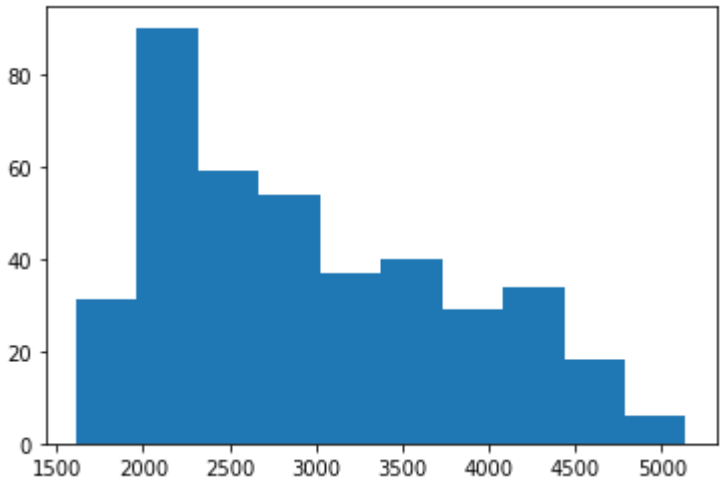
In [9]:

```
#plotting histogram using matplotlib library with hist()
import matplotlib.pyplot as plt

plt.hist(df['cylinders'],bins=10)
plt.show()
```



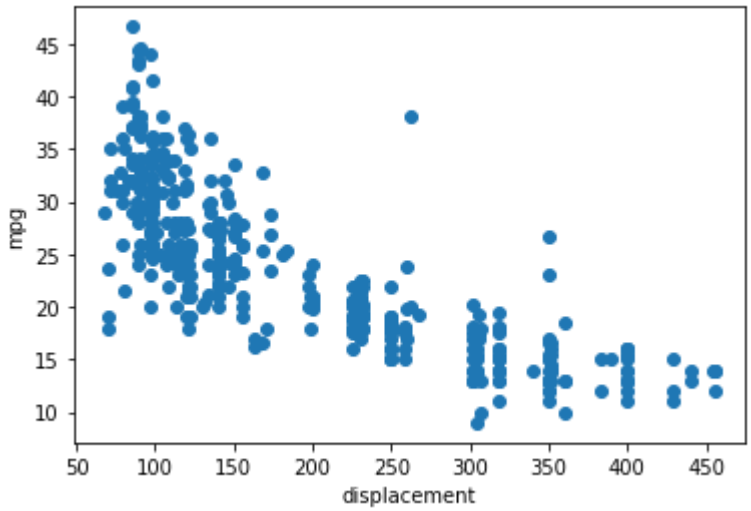
In [10]:

```
#plotting histogram using matplotlib library with hist()
import matplotlib.pyplot as plt

plt.hist(df['weight'],bins=10)
plt.show()
```



In [15]:

```
#plotting scatterplot using matplotlib library with scatter()
import matplotlib.pyplot as plt
plt.xlabel('displacement')
plt.ylabel('mpg')
plt.scatter(x = df['displacement'],y = df['mpg'])
plt.show()
```



In [19]:

```
#creating Cross-tabs with pandas using crosstab()
import pandas as pd
import seaborn as sn

url = "C:/Users/Prerna/Desktop/ML_jupyter_notenooks/datasets/auto-mpg.csv"
df = pd.read_csv(url)

pd.crosstab(index=df['origin'], columns=df['cylinders'])
```

Out[19]:

cylinders	3	4	5	6	8
origin					
1	0	72	0	74	103
2	0	63	3	4	0
3	4	69	0	6	0

In [20]:

```
#creating Cross-tabs with pandas using crosstab()
import pandas as pd
import seaborn as sn

url = "C:/Users/Prerna/Desktop/ML_jupyter_notenooks/datasets/auto-mpg.csv"
df = pd.read_csv(url)

pd.crosstab(index=df['origin'], columns=df['model year'])
```

Out[20]:

model year	70	71	72	73	74	75	76	77	78	79	80	81	82
origin													
1	22	20	18	29	15	20	22	18	22	23	7	13	20
2	5	4	5	7	6	6	8	4	6	4	9	4	2
3	2	4	5	4	6	4	4	6	8	2	13	12	9