Assignment1 Q21

In [1]:
```
import pandas as pd
from matplotlib import pyplot as plt
import seaborn as sns
```

In [2]:
```
cars=pd.read_csv('cars.csv')
```

In [3]:
```
cars.head()
```

Out[3]:

	HP	MPG	VOL	SP	WT
0	49	53.700681	89	104.185353	28.762059
1	55	50.013401	92	105.461264	30.466833
2	55	50.013401	92	105.461264	30.193597
3	70	45.696322	92	113.461264	30.632114
4	53	50.504232	92	104.461264	29.889149

In [4]:
```
cars['MPG'].mean()
```

Out[4]:34.422075728024666

In [5]:
```
cars['MPG'].median()
```

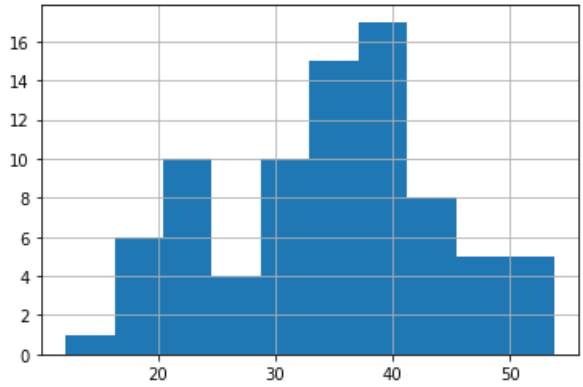
Out[5]:35.15272697

In [6]:
```
cars['MPG'].mode()
```

Out[6]:0 29.629936
Name: MPG, dtype: float64

In [7]:
```
cars['MPG'].hist()
```

Out[7]:<AxesSubplot:>



sns.distplot(cars['MPG']) plt.grid(True) plt.show()

In [9]:
```
cars['MPG'].skew()
```

Out[9]:-0.17794674747025727

In [10]:
```
cars['MPG'].kurt()
```

Out[10]:-0.6116786559430913

Assingment1 Q21 b

In [11]:
```
import pandas as pd
from matplotlib import pyplot as plt
import seaborn as sns
```

In [12]:
```
df=pd.read_csv('wc-at.csv')
```

In [13]:
```
df.head()
```

Out[13]:

	Waist	AT
0	74.75	25.72
1	72.60	25.89
2	81.80	42.60
3	83.95	42.80
4	74.65	29.84

In [14]:
```
df.mean()
```

Out[14]:Waist 91.901835
AT 101.894037
dtype: float64

In [15]:
```
df.median()
```

Out[15]:
```
Waist    90.80
AT       96.54
dtype: float64
```

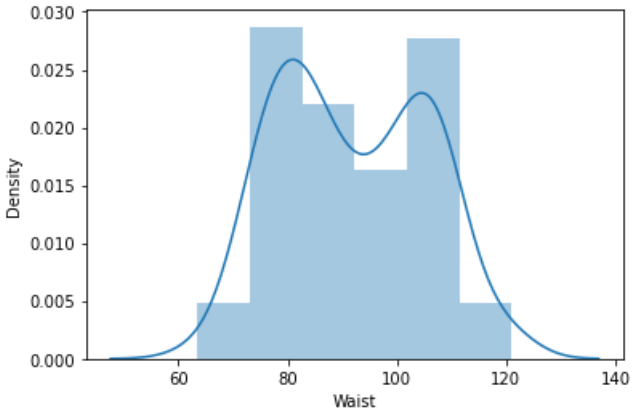
In [16]:
```
df.mode()
# waist is multimodal, AT is bimodal data
```

Out[16]:

	Waist	AT
0	94.5	121.0
1	106.0	123.0
2	108.5	NaN

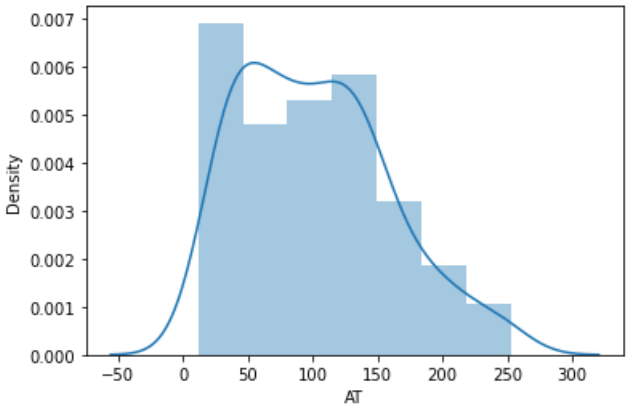
In [17]:
```
sns.distplot(df['Waist'])
plt.show()
```

```
C:\Users\HP\anaconda3\lib\site-packages\seaborn\distributions.py:2619: FutureWarning: `distplot` is a deprecated function and will be removed in a future version. Please adapt your code to use either `displot` (a figure-level function with similar flexibility) or `histplot` (an axes-level function for histograms).
  warnings.warn(msg, FutureWarning)
```



In [18]:
```
sns.distplot(df['AT'])
plt.show()
```

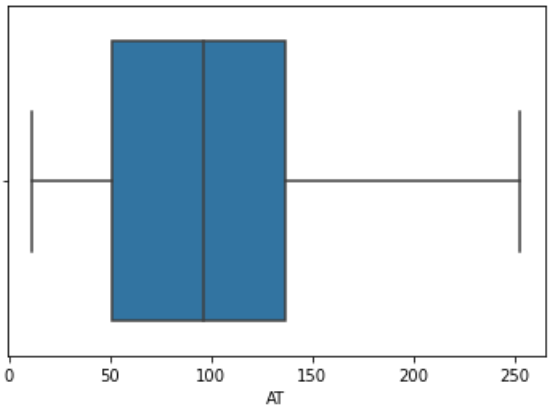
```
C:\Users\HP\anaconda3\lib\site-packages\seaborn\distributions.py:2619: FutureWarning: `distplot` is a deprecated function and will be removed in a future version. Please adapt your code to use either `displot` (a figure-level function with similar flexibility) or `histplot` (an axes-level function for histograms).
  warnings.warn(msg, FutureWarning)
```



In [19]:
```
sns.boxplot(df['AT'])
plt.show()

# mean> median, right whisker is larger than left whisker, data is positively skewed.
```

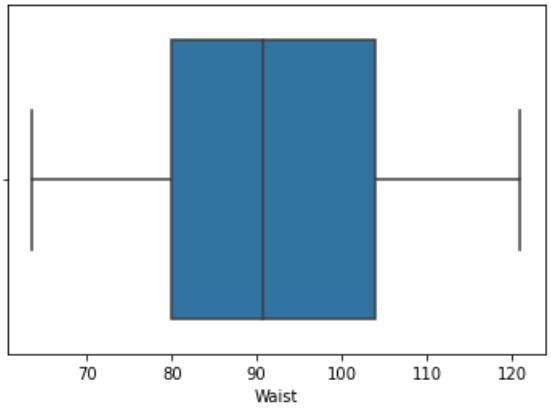
```
C:\Users\HP\anaconda3\lib\site-packages\seaborn\_decorators.py:36: FutureWarning: Pass the following variable as a keyword arg: x. From version 0.12, the only valid positional argument will be `data`, and passing other arguments without an explicit keyword will result in an error or misinterpretation.
  warnings.warn(
```



In [20]:
```
sns.boxplot(df['Waist'])
plt.show()
```

mean> median, both the whisker are of same lenght, median is slightly shifted towards left. Data is fairly symetrically

```
C:\Users\HP\anaconda3\lib\site-packages\seaborn\_decorators.py:36: FutureWarning: Pass the following variable as a keyword arg: x. From version 0.12, th
e only valid positional argument will be `data`, and passing other arguments without an explicit keyword will result in an error or misinterpretation.
  warnings.warn(
```



In [ ]: