

```
In [1]: import numpy as np
import pandas as pd
import seaborn as sns
import matplotlib.pyplot as plt
import statsmodels.api as sm
```

```
In [2]: var=pd.read_csv('C://Users/Gopi/Desktop/machine learning/csv files/Cars.csv')
var.head()
```

Out[2]:

	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 [3]: from sklearn.linear_model import LinearRegression
model=LinearRegression()
```

```
In [4]: y=var.MPG
y.head()
```

Out[4]:

```
0    53.700681
1    50.013401
2    50.013401
3    45.696322
4    50.504232
Name: MPG, dtype: float64
```

```
In [5]: X=var.drop(['MPG'],axis='columns')
X.head()
```

Out[5]:

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

```
In [6]: model.fit(X,y)
```

Out[6]: LinearRegression(copy_X=True, fit_intercept=True, n_jobs=None, normalize=False)

```
In [7]: model.predict([[53,92,104.461264,29.889149]])
```

Out[7]: array([42.17264836])

```
In [8]: model.score(X,y)
```

Out[8]: 0.7705372737359844