

```
import numpy as np
import matplotlib.pyplot as mtp
import pandas as pd
```

```
from google.colab import drive
drive.mount('/content/drive')
```

Mounted at /content/drive

```
data_set=pd.read_csv("/content/drive/MyDrive/Personal/Studies/MSC Data Science Material/SEM2/ML/Practical/data_set/PotatoPrice.csv")
data_set = data_set.dropna()
data_set
```

	potato_kg	price	x*y	2x*y	x+y
0	1.0	10.0	10.0	20.0	11.0
1	2.0	20.0	40.0	80.0	22.0
2	3.0	25.0	75.0	150.0	28.0
3	4.0	40.0	160.0	320.0	44.0
4	5.0	55.0	275.0	550.0	60.0
5	6.0	75.0	450.0	900.0	81.0
6	7.0	90.0	630.0	1260.0	97.0
7	8.0	100.0	800.0	1600.0	108.0
8	9.0	115.0	1035.0	2070.0	124.0
9	10.0	120.0	1200.0	2400.0	130.0

```
x=data_set.iloc[:,1].values
y=data_set.iloc[:,2].values
```

x

```
array([[ 1.],
       [ 2.],
       [ 3.],
       [ 4.],
       [ 5.],
       [ 6.],
       [ 7.],
       [ 8.],
       [ 9.],
       [10.]])
```

y

```
array([ 10.,  20.,  25.,  40.,  55.,  75.,  90., 100., 115., 120.])
```

```
from sklearn.model_selection import train_test_split
x_train, x_test, y_train, y_test= train_test_split(x,y, test_size=1/3, random_state=0)
```

x\_test

```
array([[ 3.],
       [ 9.],
       [ 5.],
       [10.]])
```

y\_test

```
array([ 25., 115.,  55., 120.])
```

x\_train

```
array([[2.],
       [7.],
       [8.],
       [4.],
       [1.],
       [6.]])
```

```
y_train
```

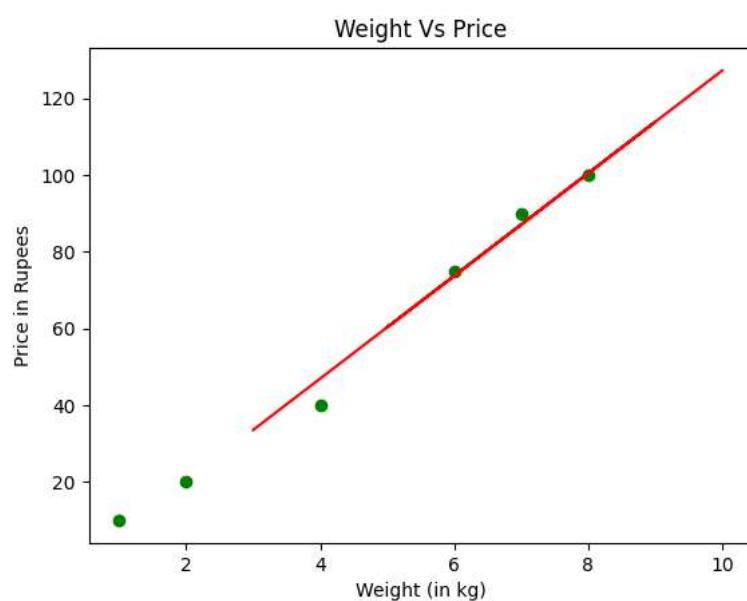
```
array([ 20.,  90., 100.,  40.,  10.,  75.])
```

```
from sklearn.linear_model import LinearRegression  
regressor=LinearRegression()  
regressor.fit(x_train,y_train)
```

```
▼ LinearRegression  
LinearRegression()
```

```
y_pred=regressor.predict(x_test)
```

```
mtp.scatter(x_train,y_train, color="green")  
mtp.plot(x_test,y_pred, color="red")  
mtp.title("Weight Vs Price")  
mtp.xlabel("Weight (in kg)")  
mtp.ylabel("Price in Rupees")  
mtp.show()
```



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