```
import pandas as pd
from sklearn.linear_model import LinearRegression
import matplotlib.pyplot as plt
```

```
from google.colab import files
uploaded = files.upload()
```

Choose Files dataset2.csv

- **dataset2.csv**(text/csv) - 19505 bytes, last modified: 4/3/2023 - 100% done

```
Saving dataset2.csv to dataset2.csv
```

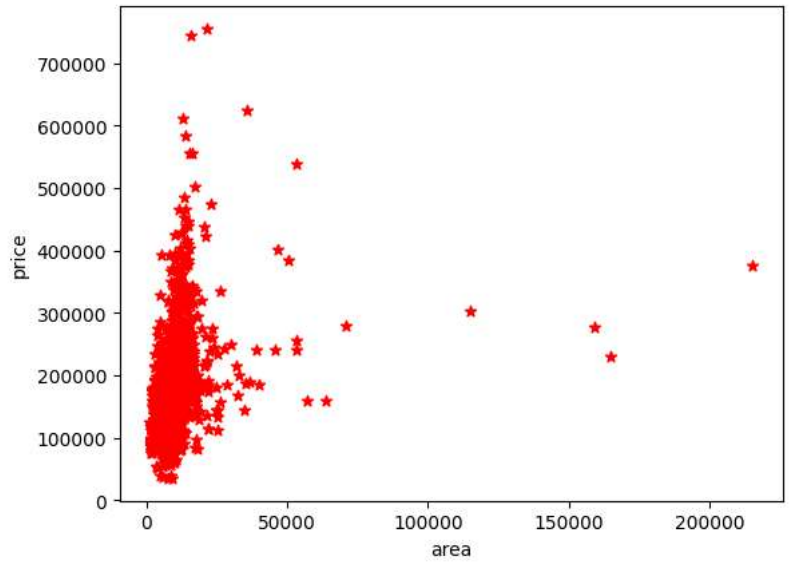
```
dataset = pd.read_csv('dataset2.csv')
```

```
print(dataset.shape)
print(dataset.head(5))
```

```
(1460, 2)
    area   price
0   8450  208500
1   9600  181500
2  11250  223500
3   9550  140000
4  14260  250000
```

```
plt.xlabel('area')
plt.ylabel('price')
plt.scatter(dataset.area,dataset.price,color='red',marker='*')
```

```
<matplotlib.collections.PathCollection at 0x7f081f837f10>
```




```
X = dataset.drop('price',axis='columns')
X
```

	area
0	8450
1	9600

```
Y = dataset.price
Y
```

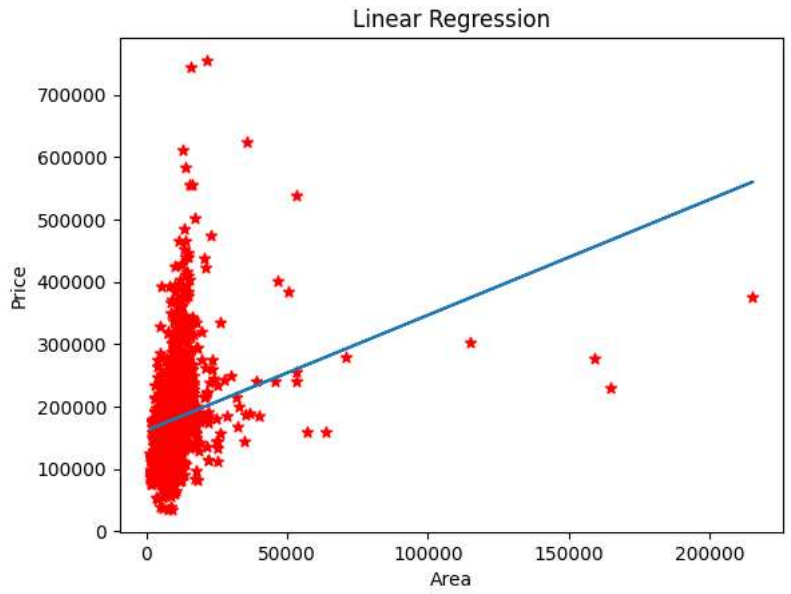
```
0       208500
1       181500
2       223500
3       140000
4       250000
         ...
1455    175000
1456    210000
1457    266500
1458    142125
1459    147500
Name: price, Length: 1460, dtype: int64
```

```
from sklearn.model_selection import train_test_split
x_train,x_test,y_train,y_test = train_test_split(X,Y,test_size=0.20,random_state=0)
```

```
model = LinearRegression()
model.fit(x_train,y_train)
```

```
▸ LinearRegression
```

```
plt.scatter(X,Y, color="red",marker='*')
plt.plot(X, model.predict(X))
plt.title("Linear Regression")
plt.xlabel("Area")
plt.ylabel("Price")
plt.show()
```



R-Squared Score

```
rsquared = model.score(x_test, y_test)
print(rsquared)
```

```
0.08557014199167645
```

Adjusted R Squared

```
n=len(dataset) #Length of Total dataset
```

```
p=len(dataset.columns)-1 #length of Features
adjr= 1-(1-rsquared)*(n-1)/(n-p-1)
print(adjr)
```

```
0.08494296101910559
```

*Predicting...

*

```
x=6500
LandAreainSqFt=[[x]]
PredictedmodelResult = model.predict(LandAreainSqFt)
print(PredictedmodelResult)
```

```
[173227.94685863]
/usr/local/lib/python3.9/dist-packages/sklearn/base.py:439: UserWarning: X does not have valid feature names, but LinearRegression was f
  warnings.warn(
```