

```
In [2]: import pandas as pd
import seaborn as sns
from sklearn import linear_model
```

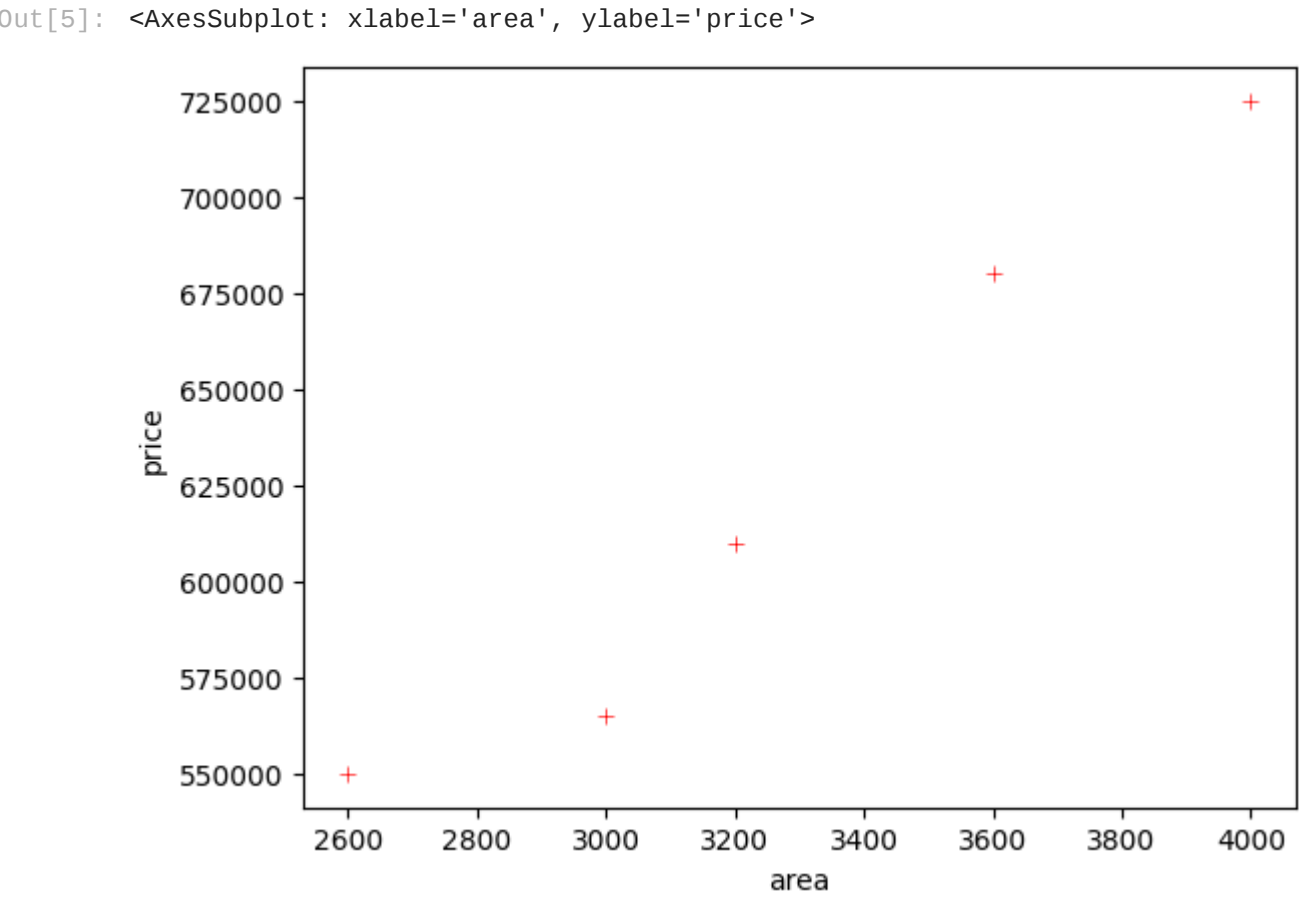
```
In [3]: df=pd.read_csv("homeprices.csv")
```

```
In [4]: df
```

Out[4]:

	area	price
0	2600	550000
1	3000	565000
2	3200	610000
3	3600	680000
4	4000	725000

```
In [5]: sns.scatterplot(x="area",y="price",data=df,color="red",marker="+")
```



```
In [7]: mod=linear_model.LinearRegression()
```

```
In [8]: mod.fit(df[['area']],df.price)
```

```
Out[8]: LinearRegression
LinearRegression()
```

```
In [9]: mod.predict([[3300]])

C:\Users\Asus\AppData\Local\Programs\Python\Python311\Lib\site-packages\sklearn\base.py:464: UserWarning: X does not have valid feature names, but LinearRegression was fitted with feature names
warnings.warn(
```

```
Out[9]: array([628715.75342466])
```

```
In [10]: mod.coef_
```

```
Out[10]: array([135.78767123])
```

```
In [11]: mod.intercept_
```

```
Out[11]: 180616.43835616432
```

```
In [12]: dg=pd.read_csv("areas.csv")
```

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

Out[13]:

	area
0	1000
1	1500
2	2300
3	3540
4	4120

```
In [14]: mod.predict(dg)
#here we predict the list of price of house from list of area
```

```
Out[14]: array([ 316404.10958904,  384297.94520548,  492928.08219178,
        661304.79452055,  740061.64383562,  799808.21917808,
        926090.75342466,  650441.78082192,  825607.87671233,
        492928.08219178, 1402705.47945205, 1348390.4109589 ,
        1144708.90410959])
```

```
In [15]: p=mod.predict(dg)
```

```
In [16]: dg['price']=p
# here we make the column name price in which we added the list of predicted price
```

```
In [17]: dg
```

Out[17]:

	area	price
0	1000	3.164041e+05
1	1500	3.842979e+05
2	2300	4.929281e+05
3	3540	6.613048e+05
4	4120	7.400616e+05
5	4560	7.998082e+05
6	5490	9.260908e+05
7	3460	6.504418e+05
8	4750	8.256079e+05
9	2300	4.929281e+05
10	9000	1.402705e+06
11	8600	1.348390e+06

In []: