

Assignment No. 1 Linear Regression

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In [1]:

```
#import the packages  
import matplotlib.pyplot as plt  
import pandas as pd
```

In [2]:

```
#Read Dataset  
dataset=pd.read_csv("hours.csv")  
dataset.head()
```

Out[2]:

	hour_spent	risk_score
0	10	95
1	9	80
2	2	10
3	15	50
4	10	45

In [3]:

```
#index read  
x=dataset.iloc[:, :-1].values  
y=dataset.iloc[:, 1].values
```

In [4]:

```
#import packages of LR  
from sklearn.linear_model import LinearRegression  
regressor=LinearRegression() # object of LR
```

In [5]:

```
# Fit Function  
regressor.fit(x,y)
```

Out[5]:

LinearRegression()

In [6]:

```
#score Function
Accuracy=regressor.score(x,y)*100
print('Accuracy Model')
print(Accuracy)
```

Accuracy Model
43.709481451010035

In [7]:

```
#Predict Function
y_pred=regressor.predict([[10]])
print(y_pred)
```

[58.46361406]

In [8]:

```
hours=int(input("Enter the num of hrs"))
```

Enter the num of hrs10

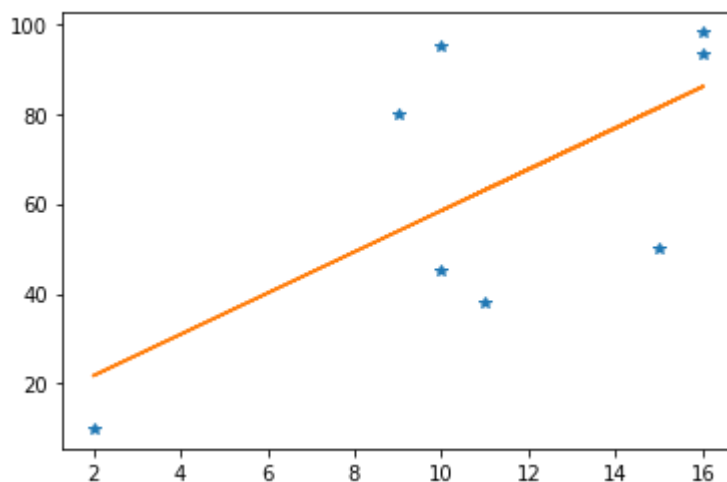
In [9]:

```
#y=mx+c
eq=regressor.coef_*hours+regressor.intercept_
print("Risk Score =",eq[0])
```

Risk Score = 58.4636140637776

In [10]:

```
plt.plot(x,y,'*')
plt.plot(x,regressor.predict(x));
plt.show()
```



In []:

