

```
In [63]: import numpy as np
import matplotlib.pyplot as plt
import pandas as pd
from sklearn.linear_model import LinearRegression
from sklearn.metrics import confusion_matrix
```

```
In [64]: dataset = pd.read_csv("linear_regression_dataset.csv")
```

```
In [65]: x = dataset.iloc[:, :-1].values
y = dataset.iloc[:, 1].values
```

```
In [66]: x
```

```
Out[66]: array([[10],
 [ 9],
 [ 2],
 [15],
 [10],
 [16],
 [11],
 [16]], dtype=int64)
```

```
In [67]: regressor = LinearRegression()
```

```
In [68]: regressor.fit(x,y)
```

```
Out[68]: LinearRegression()
```

```
In [69]: print("Coefficient : ",regressor.coef_)

print("intercept : ",regressor.intercept_)

accuracy = regressor.score(x,y)*100
print("Accuracy : ",accuracy)

y_pred = regressor.predict([[8]])
print(y_pred)
```

```
Coefficient : [4.58789861]
intercept : 12.584627964022907
Accuracy : 43.709481451010035
[49.28781684]
```

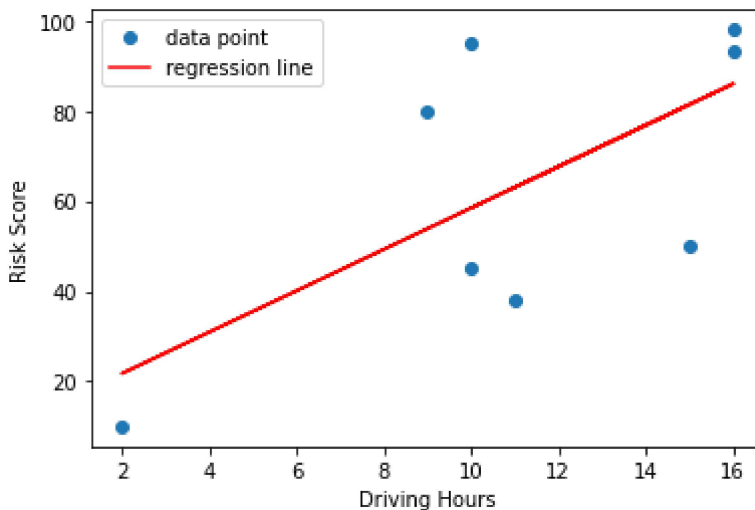
```
In [83]: hours = int(input("Enter the no of hours : "))
predicted_value = regressor.predict([[hours]])
print(predicted_value)
```

```
Enter the no of hours : 2
[21.76042518]
```

```
In [71]: plt.plot(x,y,'o', label="data point")
plt.plot(x,regressor.predict(x), color='#ff0000', label='regression l

# x-axis Label
```

```
plt.xlabel('Driving Hours')  
  
#y-axis Label  
plt.ylabel('Risk Score')  
  
plt.legend()  
plt.show()
```



```
In [72]: ypr=regressor.predict(x)
```

```
In [82]: ypr
```

```
Out[82]: array([58.46361406, 53.87571545, 21.76042518, 81.40310711, 58.463614  
06,  
85.99100572, 63.05151267, 85.99100572])
```

```
In [ ]:
```