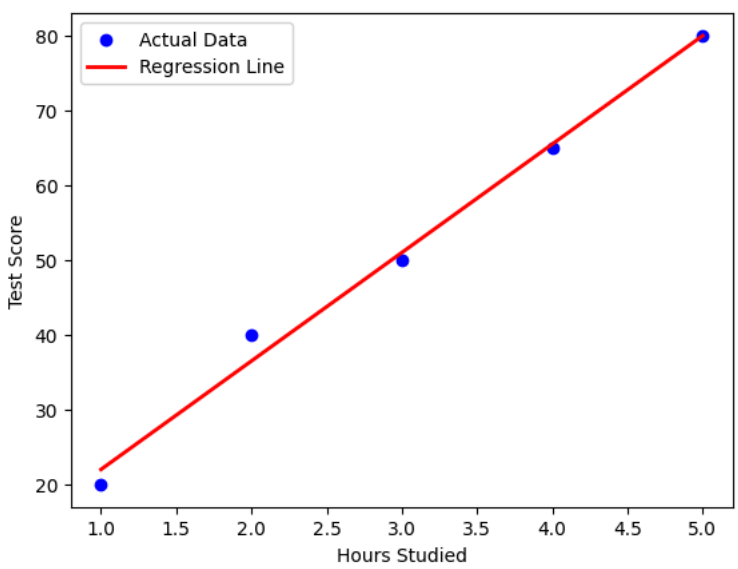
```
import numpy as np


X=np.array([1,2,3,4,5]).reshape(-1, 1)
y=np.array([20,40,50,65,80])


from sklearn.linear_model import LinearRegression
model = LinearRegression()
model.fit(X,y)
```

```
LinearRegression()
```

```
y_pred = model.predict(X)


import matplotlib.pyplot as plt

plt.scatter(X, y, color='blue', label='Actual Data')
plt.plot(X, y_pred, color='red', linewidth=2, label='Regression Line')
plt.xlabel("Hours Studied")
plt.ylabel("Test Score")
plt.legend()
plt.show()
```




```
from sklearn.metrics import mean_absolute_error, mean_squared_error
mae = mean_absolute_error(y, y_pred)
mse = mean_squared_error(y, y_pred)
rsme=np.sqrt(mse)


print("Mean Absolute Error: (mae)", mae)
print("Mean Squared Error: (mse)", mse)
print("Root Mean Squared Error: (rmse)",rsme)
```

```
Mean Absolute Error: (mae) 1.3999999999999992
Mean Squared Error: (mse) 3.5000000000000013
Root Mean Squared Error: (rmse) 1.870828693386971
```