

```
In [1]: import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns
import warnings
warnings.filterwarnings('ignore')
```

```
In [2]: df = pd.read_csv("Salary_Data.csv")
df.head()
```

Out[2]:

	YearsExperience	Salary
0	1.1	39343.0
1	1.3	46205.0
2	1.5	37731.0
3	2.0	43525.0
4	2.2	39891.0

```
In [3]: df.shape
```

Out[3]: (30, 2)

```
In [4]: df.isnull().sum()
```

Out[4]: YearsExperience 0
Salary 0
dtype: int64

```
In [5]: x = df.iloc[:, :-1]  
y = df.iloc[:, -1]
```

```
In [6]: from sklearn.model_selection import train_test_split  
xtrain,xtest,ytrain,ytest = train_test_split(x,y,test_size=0.33,random_state=2)
```

```
In [7]: from sklearn.linear_model import LinearRegression  
linreg = LinearRegression()  
linreg.fit(xtrain,ytrain)  
ypred = linreg.predict(xtest)
```

```
In [8]: print(f"Coef of Regression :- {linreg.coef_}")  
print(f"Intercept :- {linreg.intercept_}")
```

Coef of Regression :- [9512.94498763]
Intercept :- 23707.813246575468

```
In [9]: from sklearn.metrics import mean_absolute_error as mae , mean_squared_error as mse , r2_score
```

```
In [10]: print(f"MAE :- {mae(xtest,ypred)}")  
print(f"MSE :- {mse(xtest,ypred)}")  
print(f"RMSE :- {mse(xtest,ypred)**0.5}")  
print(f"Accuracy :- {r2_score(xtest,ypred)}")
```

MAE :- 65275.01284250722
MSE :- 4792479773.901618
RMSE :- 69227.73847166769
Accuracy :- -815588531.1729751

```
In [11]: plt.scatter(xtest,ytest,color='Red')  
plt.plot(xtrain,linreg.predict(xtrain), color = 'Blue')  
plt.title('Salary VS Experience')  
plt.xlabel('Experience')  
plt.ylabel('Salary')  
plt.grid()  
plt.show()
```



```
In [ ]:
```