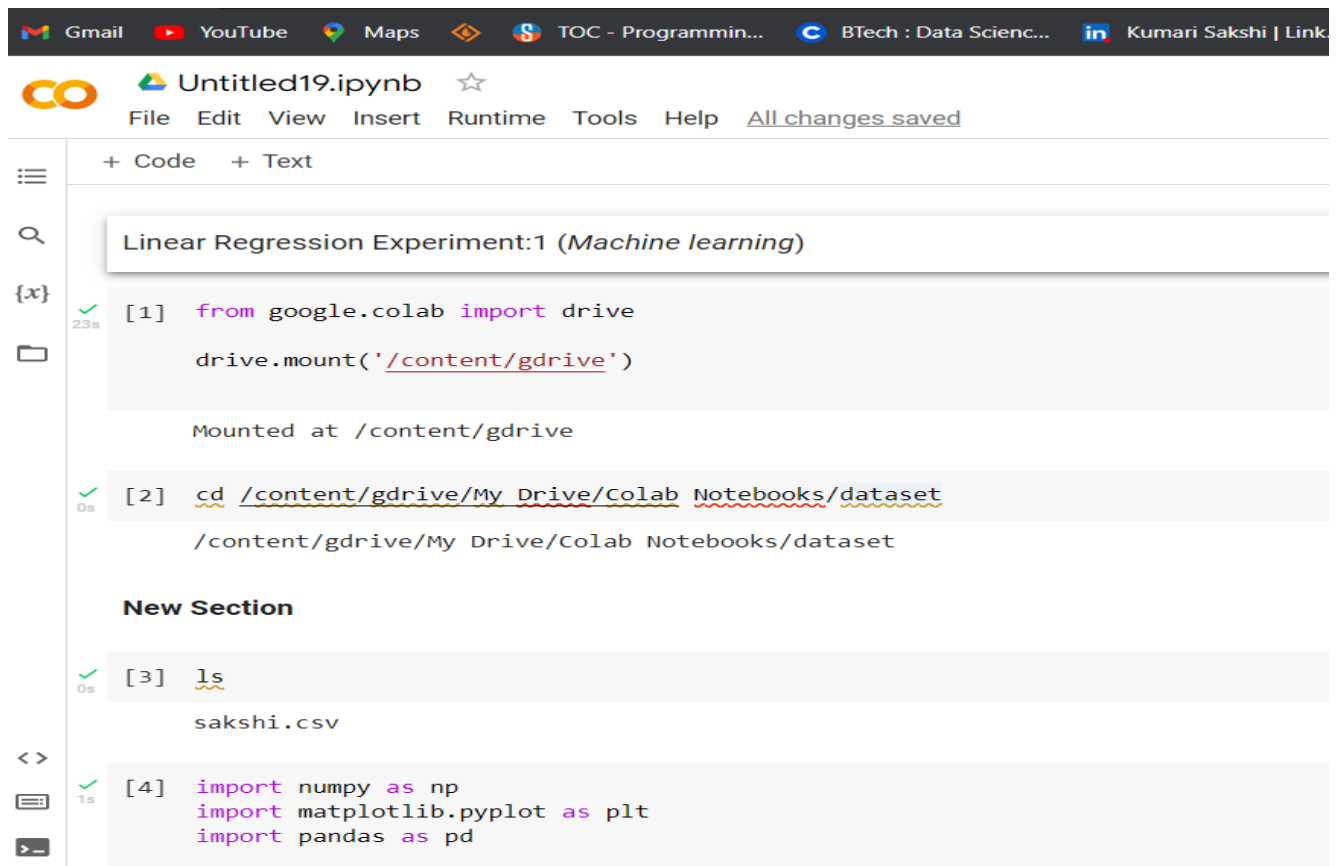# Experiment 1:

Aim: Write a program to perform various types of regression (Linear & Logistic) on Experience Vs Salary.

Theory: there are 2 variables X&Y,X is the independent variable and why is the dependent variable the equation for linear regression is Y= MX +C where am is a slope and intercept.

Linear Regression on **Year of Experience Vs Salary**

About csv: it has 31 rows and 2 columns

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```python
[5]  #import data set
     dataset= pd.read_csv('sakshi.csv')
     X= dataset.iloc[:,:-1].values
     Y= dataset.iloc[:,1].values
```

```python
#Splitting the data
from sklearn.model_selection import train_test_split
X_train, X_test, Y_train, Y_test= train_test_split(X,Y,test_size= 1/3)

#Fitting Simple Linear Regression ipynb
#This is called Model
from sklearn.linear_model import LinearRegression
regressor= LinearRegression()
regressor.fit(X_train,Y_train)
```
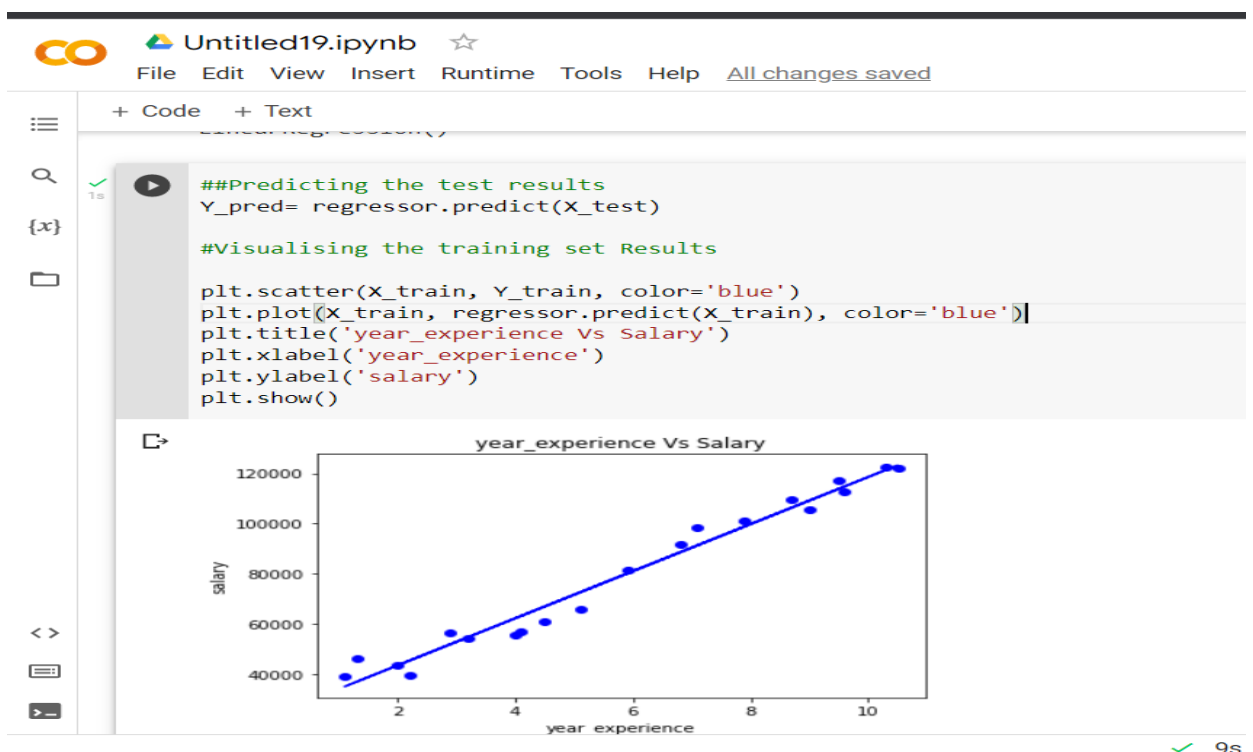
↳ LinearRegression()

```python
[7]  ##Predicting the test results
     Y_pred= regressor.predict(X_test)

     #Visualising the training set Results

     plt.scatter(X_train, Y_train, color='blue')
     plt.plot(X_train, regressor.predict(X_train), color='blue')
     plt.title('year experience Vs Salary')
```

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```python
##Predicting the test results
Y_pred= regressor.predict(X_test)

#Visualising the training set Results

plt.scatter(X_train, Y_train, color='blue')
plt.plot(X_train, regressor.predict(X_train), color='blue')
plt.title('year_experience Vs Salary')
plt.xlabel('year_experience')
plt.ylabel('salary')
plt.show()
```
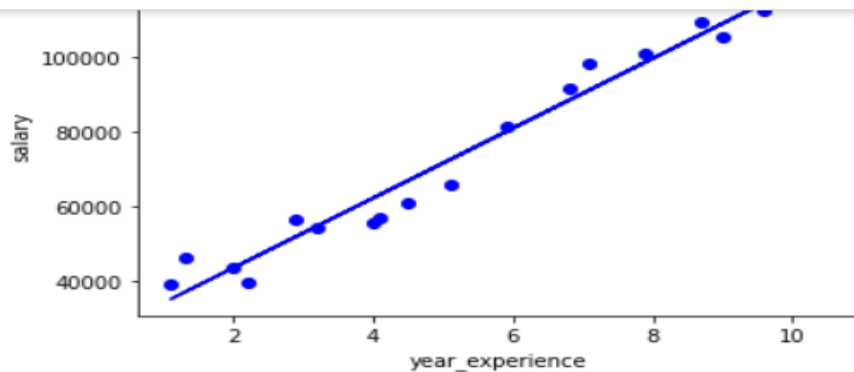
↳

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Kumari Sakshi   Roll NO: 2001331540075   Section B

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```
[8]  print(regressor.predict([[1001]]))
```

[9392501.33498552]

```
a=float(input("Enter year of experience "))
print('The Salary  is', regressor.predict([[a]]))
```

Enter year of experience 2.9
The Salary is [52082.69525536]

Double-click (or enter) to edit

[ ]