# Step 1: Load Data

import pandas as pd

dataset = pd.read\_csv('Salary\_Data.csv')

X = dataset.iloc[:, :-1].values

y = dataset.iloc[:,1].values

# Step 2: Split data into training and testing

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, random\_state=0)

# Step 3: Fit Simple Linear Regression to Training Data

from sklearn.linear\_model import LinearRegression

regressor = LinearRegression()

regressor.fit(X\_train, y\_train)

# Step 4: Make Prediction

y\_pred = regressor.predict(X\_test)

# Step 5: Visualize training set results

import matplotlib.pyplot as plt

# plot the actual data points of training set

plt.scatter(X\_train, y\_train, color = 'red')

# plot the regression line

plt.plot(X\_train, regressor.predict(X\_train), color='blue')

plt.title('Salary vs Experience (Training set)')

plt.xlabel('Years of Experience')

plt.ylabel('Salary')

plt.show()

# Step 6: Visualize test set results

import matplotlib.pyplot as plt

# plot the actual data points of test set

plt.scatter(X\_test, y\_test, color = 'red')

# plot the regression line (same as above)

plt.plot(X\_train, regressor.predict(X\_train), color='blue')

plt.title('Salary vs Experience (Test set)')

plt.xlabel('Years of Experience')

plt.ylabel('Salary')

plt.show()

# Step 7: Make new prediction

new\_salary\_pred = regressor.predict([[15]])

print('The predicted salary of a person with 15 years experience is ',new\_salary\_pred)