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# Step 1 Load Data
import pandas as pd
dataset = pd.read_csv('/content/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)
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The predicted salary of a person with 15 years experience is [167005.32889087]