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In [1]: import numpy as np
import matplotlib.pyplot as plt
import pandas as pd

# Importing the dataset
dataset = pd.read_csv('salary_data.csv')
X = dataset.iloc[:, :-1].values #get a copy of dataset exclude last column
y = dataset.iloc[:, 1].values #get array of dataset in column 1st
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In [2]: # Splitting the dataset into the Training set and Test set
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)
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In [3]: # Fitting Simple Linear Regression to the Training set
from sklearn.linear_model import LinearRegression
regressor = LinearRegression()
regressor.fit(X_train, y_train)
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Out[3]: LinearRegression()

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In [4]: # Visualizing the Training set results
viz_train = plt
viz_train.scatter(X_train, y_train, color='red')
viz_train.plot(X_train, regressor.predict(X_train), color='blue')
viz_train.title('Salary VS Experience (Training set)')
viz_train.xlabel('Year of Experience')
viz_train.ylabel('Salary')
viz_train.show()

# Visualizing the Test set results
viz_test = plt
viz_test.scatter(X_test, y_test, color='red')
viz_test.plot(X_train, regressor.predict(X_train), color='blue')
viz_test.title('Salary VS Experience (Test set)')
viz_test.xlabel('Year of Experience')
viz_test.ylabel('Salary')
viz_test.show()
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In [9]: # Predicting the result of 5 Years Experience
y_pred = regressor.predict([[5]])
y_pred
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Out[9]: array([73545.90445964])
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In [11]: y_pred = regressor.predict(X_test)
y_pred
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Out[11]: array([ 40835.10590871, 123079.39940819,  65134.55626083,  63265.36777221,
 115602.64545369, 108125.8914992 , 116537.23969801,  64199.96201652,
 76349.68719258, 100649.1375447 ])
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In [ ]:
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