

Lab 1 Linear Regression

No.	Program
1	<pre># Import tools import numpy as np import matplotlib.pyplot as plt import pandas as pd</pre>
2	<pre># Import the dataset dataset = pd.read_csv('gaji.csv') dataset.head()</pre>
3	<pre># split menjadi data dan target X = dataset.iloc[:, :-1].values # data y = dataset.iloc[:, 1].values # target</pre>
4	<pre># Split dataset kea 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)</pre>
5	<pre># Proses training/fit from sklearn.linear_model import LinearRegression regressor = LinearRegression() regressor.fit(X_train, y_train)</pre>
6	<pre># Prediksi pred = regressor.predict(X_test)</pre>
7	<pre># Visualisasi hasil training plt.scatter(X_train, y_train, color = 'red') plt.plot(X_train, regressor.predict(X_train), color = 'blue')</pre>
8	<pre># Visualising hasil tes prediksi plt.scatter(X_test, y_test, color = 'red') 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()</pre>
9	<pre># evaluasi # R-Squared, mendekati 1 lebih baik from sklearn.metrics import r2_score r2_score(y_test, pred)</pre>

10	<pre># MSE, semakin kecil semakin baik from sklearn.metrics import mean_squared_error mean_squared_error(y_test, pred)</pre>
11	<pre># RMSE, nilai error rata2 asli from math import sqrt rmse = sqrt(mean_squared_error(y_test, pred)) rmse</pre>