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# Import necessary libraries
import numpy as np
import pandas as pd
from \ sklearn.model\_selection \ import \ train\_test\_split
from sklearn.linear_model import LinearRegression
from sklearn.metrics import mean_squared_error, r2_score
# Generate some example data
np.random.seed(42)
X = np.random.rand(100, 2) # Two independent variables
y = 2 * X[:, 0] + 3 * X[:, 1] + 1 + 0.1 * np.random.randn(100) # Linear relationship with noise
# Create a DataFrame for better handling of data
\label{eq:data} \mbox{data} = \mbox{pd.DataFrame(data=np.column\_stack((X, y)), columns=['X1', 'X2', 'y'])}
# Split the data into training and testing sets
 \textbf{X\_train, X\_test, y\_train, y\_test = train\_test\_split(data[['X1', 'X2']], data['y'], test\_size=0.2, random\_state=42) } 
# Create and train the linear regression model
model = LinearRegression()
model.fit(X_train, y_train)
# Make predictions on the test set
y_pred = model.predict(X_test)
# Evaluate performance
mse = mean_squared_error(y_test, y_pred)
r2 = r2_score(y_test, y_pred)
# Display results
print(f'Mean Squared Error: {mse}')
print(f'R-squared: {r2}')
```

Mean Squared Error: 0.007144483936493809 R-squared: 0.9897532373747842