

Generate

print hello world using rot13



Close

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import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
from sklearn.model_selection import train_test_split
from sklearn.linear_model import LinearRegression
from sklearn.metrics import mean_absolute_error, mean_squared_error, r2_score

# Load dataset
file_path = 'Housing.csv'
df = pd.read_csv(file_path)

# Convert categorical variables to numerical
df = df.apply(lambda col: pd.factorizer(col)[0] if col.dtype == 'object' else col)

# Define features and target variable
X = df.drop(columns=['price'])
y = df['price']

# Split data into training and testing sets
X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.2, random_state=42)


# Train the model
model = LinearRegression()
model.fit(X_train, y_train)

# Make predictions
y_pred = model.predict(X_test)

# Evaluate the model
print(f"MAE: {mean_absolute_error(y_test, y_pred)}")
print(f"MSE: {mean_squared_error(y_test, y_pred)}")
print(f"RMSE: {np.sqrt(mean_squared_error(y_test, y_pred))}")
print(f"R-squared: {r2_score(y_test, y_pred)}")

# Plot results
plt.figure(figsize=(8, 6))
sns.scatterplot(x=y_test, y=y_pred)
sns.lineplot(x=y_test, y=y_test, color='red')
plt.xlabel("Actual Prices")
plt.ylabel("Predicted Prices")
plt.title("Actual vs Predicted Prices")
plt.show()

```

 MAE: 979679.6912959905
 MSE: 1771751116594.0352
 RMSE: 1331071.4167895108
 R-squared: 0.6494754192267803

