import pandas as pd

import numpy as np

import matplotlib.pyplot as plt

from sklearn.linear\_model import LinearRegression

from sklearn.model\_selection import train\_test\_split

from sklearn.metrics import mean\_absolute\_error, mean\_squared\_error, r2\_score

df = pd.read\_csv('House\_Rent\_Dataset.csv')

df['City'].value\_counts()

from sklearn.preprocessing import LabelEncoder

le = LabelEncoder()

df['City'] = le.fit\_transform(df['City'])

X = df[['Size', 'Bathroom']]

y = df[['Rent']]

X\_train, X\_test, y\_train, y\_test = train\_test\_split(X, y, test\_size=0.2, random\_state=42)

model = LinearRegression()

model.fit(X\_train, y\_train)

y\_pred = model.predict(X\_test)

mae = mean\_absolute\_error(y\_test, y\_pred)

mse = mean\_squared\_error(y\_test, y\_pred)

r2 = r2\_score(y\_test, y\_pred)

print(f"Mean Absolute Error (MAE): {mae:.2f}")

print(f"Mean Squared Error (MSE): {mse:.2f}")

print(f"R-squared (R²): {r2:.2f}")