import pandas as pd import numpy as np import matplotlib.pyplot as plt import seaborn as sns from sklearn.preprocessing import MinMaxScaler, LabelEncoder from sklearn.model_selection import train_test_split from sklearn.linear_model import LinearRegression from sklearn.metrics import mean_squared_error, r2_score from google.colab import files files.upload() df = pd.read_csv('HousePricePrediction.xlsx -Sheet1.csv') print(df.head()) print(df.describe()) # Check for missing values print(df.isnull().sum()) # Correlation matrix to understand feature relationships correlation_matrix = df.select_dtypes(include='number').corr() sns.heatmap(correlation_matrix, annot=True, cmap='coolwarm') plt.title("Correlation Matrix") plt.show() # Preprocessing: Selecting features and target variable X = df[['bedrooms', 'bathrooms', 'sqft_living', 'sqft_lot', 'floors', 'waterfront', 'view', 'condition']] y = df['price'] # Splitting the dataset 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)