**HOUSE PRICE PRIDICATION USING MACHINE LEARNIG**

**PHASE 4-DEVELOPMENT PART1**

**python**

# Import necessary libraries

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

# Load your dataset (assuming it's in a CSV file)

# Replace 'dataset.csv' with your actual dataset file

data = pd.read\_csv('dataset.csv')

# Assume 'features' contains the columns you want to use for prediction

features = ['bedrooms', 'bathrooms', 'sqft\_living', 'sqft\_lot', 'floors']

X = data[features]

y = data['price']

# Split the 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)

# Create a linear regression model

model = LinearRegression()

# Train the model

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

# Make predictions on the test set

predictions = model.predict(X\_test)

# Calculate and print metrics

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

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

print(f'Mean Squared Error: {mse}')

print(f'R-squared: {r2}')

# Now you can use the trained model to make predictions for new data

# For example:

# new\_data = pd.DataFrame([[3, 2, 2000, 5000, 2