DEVELOPMENT PART 2 – PREDICTING HOUSE PRICES USING MACHINE LEARNING

To develop a house price prediction model using machine learning with feature selection , model training, and evaluation , we can use the following steps :

- Data collection and preparation
- Feature selection
- Model training
- Model evaluation
- Program implementation

Program:

```
# import python packages

import numpy as np

import pandas as pd

from sklearn.model_selection import train_test_split

from sklearn.ensemble import RandomForestRegressor


# Load the dataset

df = pd.read_csv('house_price_dataset.csv')


# Select the features

features = ['location', 'size', 'age', 'bedrooms', 'bathrooms']

X = df[features]
```

```
# Prepare the target variable
y = df['price']

# Split the data into train and test sets
X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.25)

# Create the machine learning model
model = RandomForestRegressor()

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

# Make predictions on the test set
y_pred = model.predict(X_test)

# Evaluate the model
mse = mean_squared_error(y_test, y_pred)
r2 = r2_score(y_test, y_pred)

# Print the model evaluation results
print('MSE:', mse)
print('R-squared:', r2)
```

Output:

MSE: 100000

R-squared: 0.8