import numpy as np

import pandas as pd

import matplotlib.pyplot as plt

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

from sklearn.linear\_model import LinearRegression

from sklearn.metrics import r2\_score

df = pd.read\_csv("C:/Users/Aastha Kanaujia/Downloads/AIML\_Datasets/housing\_prices\_SLR.csv")

df.head()

x=df[['AREA']].values

y=df['PRICE'].values

x\_train,x\_test,y\_train,y\_test = train\_test\_split(x,y,test\_size=0.2,random\_state=100)

model=LinearRegression()

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

print(model.intercept\_) #learn ye

print(model.coef\_[0])

y\_train\_pred=model.predict(x\_train)

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

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

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

print(r2\_train)

print(r2\_test)

plt.scatter(x\_train,y\_train,label='a')

plt.scatter(x\_test,y\_test,label='b')

plt.plot(x\_train,y\_train\_pred,label='c')

plt.legend()

plt.xlabel('d')

plt.show()