# -\*- coding: utf-8 -\*-

"""

Created on Sun Mar 15 03:46:38 2020

@author: Srihitha

"""

import pandas as pd

from sklearn.svm import SVC

from sklearn.linear\_model import LinearRegression

def reg(file,impacts,outcome,inps):

data = pd.read\_csv(file)

X = data[impacts]

Y = data[outcome]

linear\_regressor = LinearRegression()

linear\_regressor.fit(X, Y)

nx = [inps]

pred = linear\_regressor.predict(nx)

return pred

def classify(file,impacts,outcome,inps):

data = pd.read\_csv(file)

X = data[impacts]

Y = data[outcome]

Y = Y.round()

clf = SVC(kernel='linear')

clf.fit(X, Y)

nx = [inps]

pred1= clf.predict(nx)

return pred1

print("Bot: Hiii")

msg0=input("You: ")

print("Bot: How can i help you?")

msg=input("You: ")

#preds=msg.split(" ")

#for pred in preds:

#if pred in data:

#print(data[pred])

print("Bot: Can you please choose regression or classification for your bank loan ?")

msg1=input("You: ")

print("Bot: How much amount do you want? : ")

Loan\_amt = int(input("You : "))

print("Bot: What is your cibil score? : ")

cibil\_score = int(input("You :"))

print("Bot: May i know the cibil score of your surity ?: ")

surity\_cibil = int(input("You :"))

print("Bot: What is your Annual income?: ")

Annual\_income = int(input("You :"))

print("Bot : What is the net worth of your Collateral?: ")

Collateral = int(input("You :"))

print("Bot: If you are a govt employee enter '1' else '0': ")

Employment = int(input("You :"))

print("Bot : Do you have past credits ?if any enter '0' else '1': ")

Past\_cred = int(input("You :"))

print("Bot : Do you have any criminal records in the past ?if any enter '0' else '1': ")

hist = int(input("You : "))

if "regression" in msg1:

p = reg('BankLoanPrediction.csv',["Loan\_amt","cibil\_score","surity\_cibil","Annual\_income","Collateral","Employment","Past\_cred","hist"],"Outcome",[Loan\_amt,cibil\_score,surity\_cibil,Annual\_income,Collateral,Employment,Past\_cred,hist])

print("The regression of your predicted loan is : ",float(p[0]))

if "classification" in msg1:

p = classify('BankLoanPrediction.csv',["Loan\_amt","cibil\_score","surity\_cibil","Annual\_income","Collateral","Employment","Past\_cred","hist"],"Output\_class",[Loan\_amt,cibil\_score,surity\_cibil,Annual\_income,Collateral,Employment,Past\_cred,hist])

print("The classification value of your predicted loan is: ",float(p[0]))