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

"""

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"""

import pandas as pd

from sklearn.linear\_model import LinearRegression

from sklearn.svm import SVC

print('hi,how may i help you?')

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]

clf = SVC(kernel='linear')

clf.fit(X, Y)

nx = [inps]

pred = clf.predict(nx)

return pred

msg=input('you:')

if 'predict' in msg:

a=print('choose regresssion or classification:')

msg=input('you:')

Area = int(input("In how much Area you want to predict: "))

Moisture = float(input("Moisture levels of the area(between 12.0 to 14.0): "))

rainfall = float(input("rainfall received in meters: "))

Maxtemp = int(input(" Maxtemp in your area: "))

Mintemp = int(input(" Mintemp in your area: "))

Humidity = int(input("what is Humidity present(in %) : "))

Soiltype = int(input("what is your field area Soiltype(1-clay,2-black soil,3-red soil,4-sandy soil): "))

Fertilizers = int(input("Fertilizers used in field(in %): "))

pests = int(input("Are pests present in your field(yes-1,No-0) : "))

pathogens = int(input("Are pathogens in your field(yes-1,No-0): "))

if "regression" in msg:

r = reg('CropYieldPrediction.csv',["Area","Moisture","rainfall","Maxtemp","Mintemp","Humidity","Soiltype","Fertilizers","pests","pathogens"],"Outcomes",[Area,Moisture,rainfall,Maxtemp,Mintemp,Humidity,Soiltype,Fertilizers,pests,pathogens])

print("The value of crop yielding is: ",float(r[0]))

elif "classification" in msg:

q = classify('CropYieldPrediction.csv',["Area","Moisture","rainfall","Maxtemp","Mintemp","Humidity","Soiltype","Fertilizers","pests","pathogens"],"OUTCOME",[Area,Moisture,rainfall,Maxtemp,Mintemp,Humidity,Soiltype,Fertilizers,pests,pathogens])

print("The class of crop yielding is: ",float(q[0]))

else:

print('Sorry! I cannot understand!')

#p = predict('CropYieldPrediction.csv',["Area","Moisture","rainfall","Maxtemp","Mintemp","Humidity","Soiltype","Fertilizers","pests","pathogens"],"Outcomes",[Area,Moisture,rainfall,Maxtemp,Mintemp,Humidity,Soiltype,Fertilizers,pests,pathogens])