**Bank\_Personal\_Loan\_Modelling**

**Code**

**# Importing all required files**

import pandas as pd

import numpy as np

from sklearn import tree

from sklearn import preprocessing

dataset=pd.read\_csv("Bank\_Personal\_Loan\_Modelling\_1.csv")

dataset2=dataset.dropna() # this just to check null values are present or not thr is not difference in the number of rows

**# Creating model**

tree\_model=tree.DecisionTreeClassifier()

**# Adding all columns for predictions**

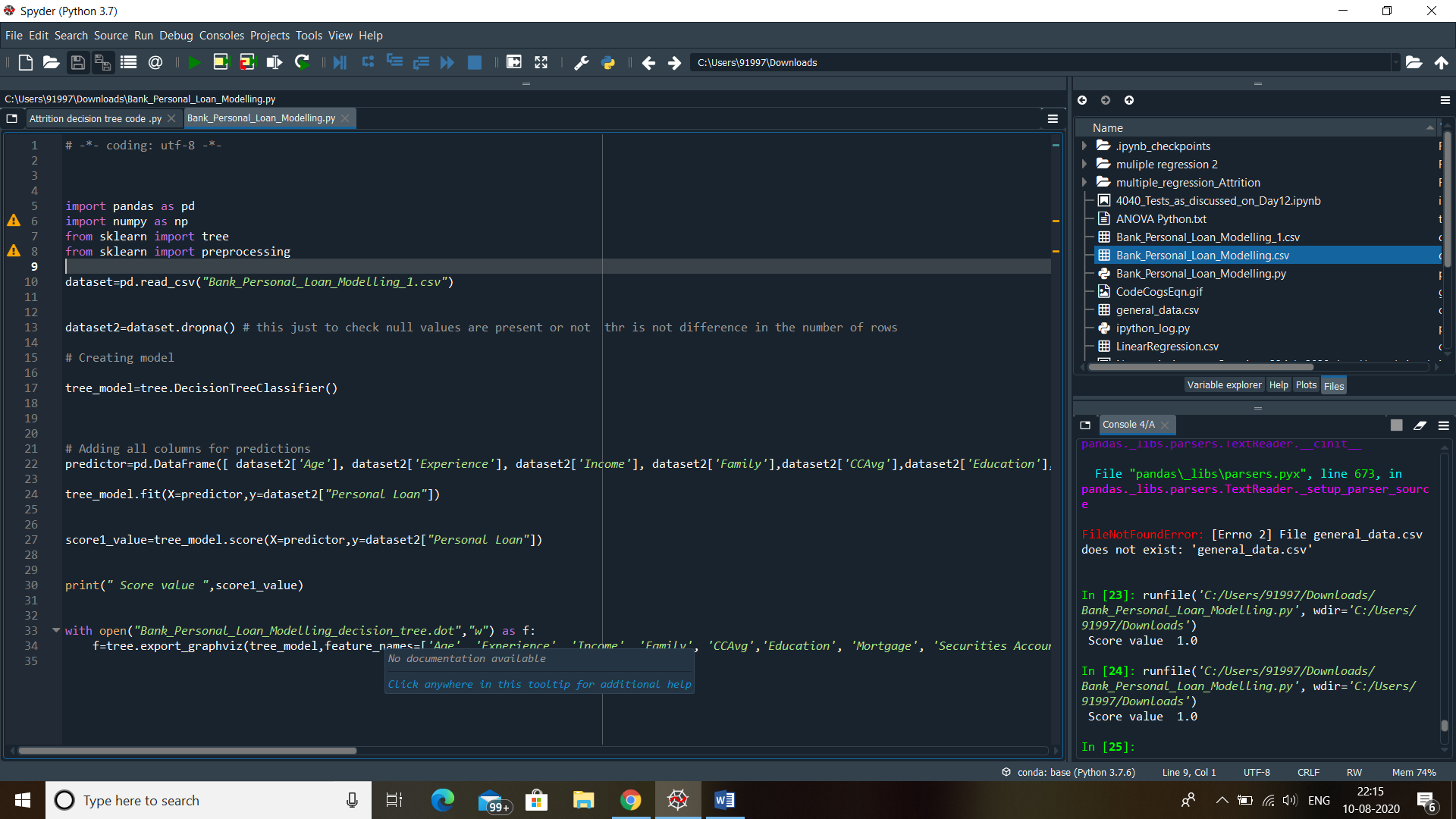
predictor=pd.DataFrame([ dataset2['Age'], dataset2['Experience'], dataset2['Income'], dataset2['Family'],dataset2['CCAvg'],dataset2['Education'], dataset2['Mortgage'], dataset2['Securities Account'],dataset2['CD Account'], dataset2['Online'], dataset2['CreditCard']]).T

tree\_model.fit(X=predictor,y=dataset2["Personal Loan"])

**# calculate Score**

score1\_value=tree\_model.score(X=predictor,y=dataset2["Personal Loan"])

print(" Score value ",score1\_value)



**# Exporting decision tree**

with open("Bank\_Personal\_Loan\_Modelling\_decision\_tree.dot","w") as f:

f=tree.export\_graphviz(tree\_model,feature\_names=['Age', 'Experience', 'Income', 'Family', 'CCAvg','Education', 'Mortgage', 'Securities Account','CD Account', 'Online', 'CreditCard'],out\_file=f);

**Result :**

Decision tree info present in the file “Bank\_Personal\_Loan\_Dtree.dot”