**CREATING A CROP WAREHOUSE MANAGEMENT SYSTEM**

Structure:

We read the contents of the excel sheet into csv file and took the data from the csv file. Using panda module, we obtained the data needed for a particular crop/year using groupby function. We tried plotting the graph using matplotlib by converting the csv file into list and summing the production of a particular crop in a particular year.

Assumptions:

1) The file is stored in the path used, hence works only on this particular system.

2) User can only view one crop’s graph at a time

3) There is no memory constraint

Constraint:

1. If a year/crop is entered whose info is unavailable, then there is a compilation error.

import sys

import pandas as pd

import matplotlib.pyplot as plt; plt.rcdefaults()

import matplotlib.pyplot as plt

df=pd.read\_csv('CropsDataFile.csv',usecols=['Year','Crop\_Name','Production'])

while(1):

    print("Enter 1 to retrive data year wise,")

    print("Enter 2 to retrive cropwise details")

    print("Enter 3 to exit system")

    ch=int(input())

    if ch==1:

       print("Enter year")

       yr=input()

       gk=df.groupby('Year')

       s=gk.get\_group(yr)

       print(s)

    elif ch==2:

       crop=input("Enter crop:",)

       gk=df.groupby('Crop\_Name')

       s=gk.get\_group(crop)

       print(s)

       print("\nenter 1 if you a graph\n")

       print("enter 2 if you want to exit\n")

       ch2=int(input())

       if ch2==1:

           ss=s.groupby('Year')['Production'].apply(lambda x: x.tolist()).to\_dict()

           #print(ss)

           pro=list()

           sum=0

           for i in ss.values():

                for j in i:

                    sum+=float(j)

                pro.append(sum)

                sum=0

           #print(pro)

           year=list()

           for x in ss.keys():

               year.append(x)

           #print(year)

           plt.bar(year,pro)

           plt.xlabel('year')

           plt.ylabel('production')

           plt.title('Year wise production of crop')

           plt.show()

       else:

           sys.exit(1)

    elif ch==3:

       print("\nThank you for using our system!\nHave a good day!\n")

       sys.exit(1)

    else:

        print("Wrong Choice!! Try again!")