import numpy as np

import matplotlib.pyplot as plt

import csv

import pandas as pd

# Reading value from keyboard

x= input('enter x')

y= input('enter y')

sum = int(x) + int(y)

print('sum of{0} and {1} is {2}'.format(x,y,sum))

#

# 1. Read data

with open("ddt.csv",'r') as f :

data = list(csv.reader(f,delimiter=","))

x = np.array(data)

y = x.reshape(3,5)

print(x)

z = np.array(y,dtype=np.int)

print(z)

#2. Another method of reading a file

#It’s possible to use NumPy to directly read csv or other files into arrays

dd = np.genfromtxt("ddt2.csv",delimiter = ",",dtype=np.int)

print("first array")

print(dd)

print(dd[0:2,0:3])

print(dd[0:2,1:4])

# Normalization by dividinthe column by its maximum value

ddnorm = dd/dd.max(axis=0)

print(ddnorm)

# 3. Another method of reading data from file

a=pd.read\_csv("ddt3.csv",delimiter=",",header=None)

b = np.array(a)

print(b)

# Reading string

gdp = np.genfromtxt("Book1.csv",delimiter = ",",dtype=str)

print(gdp)

print(gdp[2,4])

print("Writing Name ")

print("Mr. "+ gdp[2,4]+str(123))

# Read and Write

# import csv

x= open('data1.csv' ,'r')

z=pd.read\_csv(x,header=None)

print(z.shape)

zz=np.array(z)

print(zz[0:3,0:3])

tt=open('data2.csv','w')

tt.write(str(zz[0:3,0:3]))

# use of matplotlib

xx = [5,6,8,10,15]

print(' values of xx')

print(xx)

t=[0,1,2,3,4]

plt.figure()

plt.plot(t,xx)

plt.title('Plot of xx vs t ')

plt.show()