Source code:

import pandas as pd

import numpy as np

import sqlalchemy

import matplotlib.pyplot as plt

df =pd.DataFrame()

csv\_file = "D:\Hospitals Database.csv"

def read\_csv\_file():

df =pd.read\_csv(csv\_file)

print(df)

read\_csv\_file()

# name of function : clear

# purpose : clear output screen

def clear():

for x in range(10):

print()

def data\_analysis\_menu():

df = pd.read\_csv(csv\_file)

while True:

clear()

print('\n\nData Analysis MENU ')

print('\_'\*100)

print('1. Show Whole DataFrame\n')

print('2. Show Columns\n')

print('3. Show Top Rows\n')

print('4. Row Bottom Rows\n')

print('5. Show Specific Column\n')

print('6. Add a New Record\n')

print('7. Add a New Column\n')

print('8. Delete a Column\n')

print('9. Delete a Record\n')

print('10. Data Summary\n')

print('11. Exit (Back to Main Menu)\n')

ch = int(input('Enter your choice:'))

if ch == 1:

print(df)

wait = input()

if ch == 2:

print(df.columns)

wait = input()

if ch == 3:

n = int(input('Enter Total rows you want to show :'))

print(df.head(n))

wait = input()

if ch == 4:

n = int(input('Enter Total rows you want to show :'))

print(df.tail(n))

wait = input()

if ch == 5:

print(df.columns)

col\_name = input('Enter Column Name that You want to print : ')

print(df[col\_name])

wait = input()

if ch==6:

a = input('Enter Name of patient :')

b = input('Enter Hospital Name:')

c = input(' Enter treatment name :')

d = int(input(' Enter price of treatment :'))

e = float(input(' Enter no. of room :'))

f = float(input(' Enter total payment done:'))

g = input(' Enter the age of patient :')

h = input(' Enter the address :')

i = input(' Enter contact :')

data={'Name of patient':a,'Hospital Name':b,"Treatment":c,'Price of Treatment':d,'Room number':e,"Total Payment":f,"Name of shop":g,"Patient address":h,"contact":i}

df = df.append(data,ignore\_index=True)

print(df)

wait=input()

if ch==7:

col\_name = input('Enter new column name :')

col\_value = input('Enter default column value :')

df[col\_name]=col\_value

print(df)

print('\n\n Press any key to continue....')

wait=input()

if ch==8:

col\_name =input('Enter column Name to delete :')

del df[col\_name]

print(df)

print('\n\n Press any key to continue....')

wait=input()

if ch==9:

index\_no =int(input('Enter the Index Number that You want to delete :'))

df = df.drop(df.index[index\_no])

print(df)

print('\n\n Press any key to continue....')

wait = input()

if ch==10:

print(df.describe())

print("\n\n Press any key to continue....")

wait=input()

if ch==11:

break

# name of function : graph

# purpose : To generate a Graph menu

def graph():

df = pd.read\_csv(csv\_file)

while True:

clear()

print('\nGRAPH MENU ')

print('\_'\*100)

print('1. Whole Data LINE Graph\n')

print('2. Bar Graph Displaying \n')

print('3. Histrogram Displaying Range\n')

print('4. Exit (Back to MAIN MENU)\n')

ch = int(input('Enter your choice:' ))

if ch==1:

x = df['Facility.Name']

y = df['Rating.Overall']

plt.xticks(rotation='vertical')

plt.xlabel('Facility.Name-->')

plt.ylabel('Rating.Overall-->')

plt.title('PLOT SHOWING Rating.Overall WISE Facility.Name')

plt.grid(True)

plt.plot(x, y)

plt.show()

if ch==2:

m=df.groupby("Facility.Type")

x = df['Facility.Type'].unique()

y= m['Procedure.Heart Attack.Cost'].sum()

plt.bar(x,y)

plt.xticks(rotation='vertical')

plt.grid(True)

plt.title("Bar Graph Representing Facility.Type Wise Procedure.Heart Attack.Cost")

plt.xlabel('Facility.Type')

plt.ylabel('Procedure.Heart Attack.Cost')

plt.show()

wait= input()

if ch==3:

x=df["Rating.Overall"]

plt.ylim(100,1500)

plt.xlim(0,5)

plt.title('Histrogram Displaying Rating.Overall for Procedure.Heart Failure.Cost')

plt.xlabel('Rating.Overall-->')

plt.ylabel('Procedure.Heart Failure.Cost-->')

plt.xticks(rotation='vertical')

plt.hist(x,bins=10,edgecolor="red")

plt.show()

if ch==4:

break

# function name : export\_menu

# purpose : function to generate export menu

def export\_menu():

df = pd.read\_csv(csv\_file)

while True:

clear()

print('\n\nEXPORT MENU ')

print('\_'\*100)

print()

print('1. CSV File\n')

print('2. MySQL Table\n')

print('3. Exit (Back to MAIN MENU)')

ch = int(input('Enter your Choice : '))

if ch==1:

df.to\_csv("D:\Hospitals Database.csv")

print('\n\nCheck your new file "Hospitals Database.csv" on D: Drive.....')

wait = input()

if ch == 2:

engine = sqlalchemy.create\_engine('mysql+pymysql://root:admine@localhost:3306/PROJECTWORK')

df.to\_sql(name='student',con=engine,index=False,if\_exists='replace')

print('\n\nPlease check PROJECT database for Hospitals table.....')

wait = input()

if ch == 3:

break

def main\_menu():

while True:

clear()

print('MAIN MENU ')

print('\_'\*100)

print()

print('1. Read CSV File\n')

print('2. Data Analysis Menu\n')

print('3. Graph Menu\n')

print('4. Export Data\n')

print('5. Exit\n')

choice = int(input('Enter your choice :'))

if choice==1:

read\_csv\_file()

wait=input()

if choice==2:

data\_analysis\_menu()

wait=input()

if choice==3:

graph()

wait=input()

if choice==4:

export\_menu()

wait=input()

if choice==5:

break

# call your main menu

main\_menu()

Output:































