**ID-57**

**PROBLEM STATEMENT:** ****Create Phone Directory****

Create a phone directory with menu  
create contact  
add new contact  
update contact  
delete contact  
show a give name contact  
show all contact

**CODE:**

from hashlib import new

import pandas as pd

import csv

header = ['FirstName', 'LastName', 'Mobile1', 'Mobile2']

with open('contact.csv', 'w') as f:

    writer = csv.writer(f)

    # write the header

    writer.writerow(header)

print("\n\n\*\*\*\*Dear user, Welcome to your phone directory!\*\*\*\*\*")

contact="contact.csv"

phFile= open(contact, "a+")

phFile.close

def showMenu():

    print("---------------------------------------------------")

    print("\*\*\*\*\*MENU BAR\*\*\*\*\*", flush=False)

    print("[1] Create New Contact")

    print("[2] Add New Contact")

    print("[3] Update Contact")

    print("[4] Delete Contact")

    print("[5] Search Contact By Name")

    print("[6] Show All Contact")

    print("[0] EXIT")

    print("---------------------------------------------------")

    #asking choice from user

    choice=int(input("\nEnter your Choice : "))

    #checking user's entered choice

    if(choice==1):

      newContact()

    elif(choice==2):

      addContact()

    elif(choice==3):

      updateContact()

    elif(choice==4):

      deleteContact()

    elif(choice==5):

      searchContact()

    elif(choice==6):

      showContact()

    elif(choice==0):

      print("\n\n\*\*\*\*\*Exiting!\*\*\*\*")

      print("\n\n\*\*\*\*\*GoodBye User, Have a nice day!\*\*\*\*")

      exit()

    else:

      print("\nPlease enter a valid choice\n")

#function to create new contact

def newContact():

  fname=input("First Name : ")

  lname=input("Last Name : ")

  mob1=input("Mobile Number : ")

  tempMob=''

  data=[fname,lname,mob1,'']

  with open('contact.csv','a')as f:

    f.writelines(f'\n{fname.capitalize()},{lname.capitalize()},{mob1},{tempMob}')

  print("\n>>>>Contact added successfully<<<<")

  print("---------------------------------------------------\n")

  showMenu()

# function will help in case of addContact for writing to file

def helpAddContact(fn,ln,num):

    with open("contact.csv","r") as f1, open("temp.csv","w",newline="") as f2:

        writer=csv.writer(f2)

        reader=csv.reader(f1)

        for row in reader:

            if len(row)==0:

                continue

            elif row[0] !=fn and row[1]!=ln:

                writer.writerow(row)

            elif row[0] !=fn and row[1]==ln:

                writer.writerow(row)

            elif row[0] ==fn and row[1]!=ln:

                writer.writerow(row)

            elif (row[0]==fn and row[1]==ln):

                if row[2]!="" and row[3]!="":

                    writer.writerow(row)

            elif (row[0]==fn and row[1]==ln):

                if row[2]!="" and row[3]=="":

                    pass

    with open("contact.csv","w",newline="") as ff1, open("temp.csv","r") as ff2:

        tempWriter=csv.writer(ff1)

        tempReader=csv.reader(ff2)

        for tempRow in tempReader:

            tempWriter.writerow(tempRow)

    print("\n>>>>Contact created successfully<<<<")

    print("---------------------------------------------------\n")

# function will add contact that is add second mobile number in an existing contact

def addContact():

    df=pd.read\_csv("contact.csv")

    lst1=list(df['FirstName'])

    lst2=list(df['Mobile1'])

    num=input("Mobile Number : ")

    with open("contact.csv","r") as f1:

        reader=csv.reader(f1)

        for row1 in reader:

            if len(row1)==0:

                continue

            elif row1[2]==num:

                print("\n>>>>Contact already exist<<<<")

                print("---------------------------------------------------\n")

                showMenu()

    fn=input("First Name : ")

    ln=input("Last Name : ")

    with open("contact.csv","r") as f2:

        reader=csv.reader(f2)

        for row2 in reader:

            if len(row2)==0:

                continue

            elif row2[0]==fn and row2[1]==ln:

                idx=lst1.index(fn)

                with open("contact.csv","a") as ff:

                    ff.writelines(f'\n{fn.capitalize()},{ln.capitalize()},{lst2[idx]},{num}')

                helpAddContact(fn,ln,num)

                showMenu()

        else:

            print("\n>>>>Not a valid Name to Add contact<<<<")

            print("---------------------------------------------------\n")

            showMenu()

# function will help in case of updateContact for writing to file

def helpUpdateContact(fn,ln,data,reference):

    with open("contact.csv","r") as f1, open("temp.csv","w",newline="") as f2:

        reader=csv.reader(f1)

        writer=csv.writer(f2)

        for row in reader:

            if len(row)==0:

                continue

            elif (row[0]==fn and row[1]==ln):

                if reference==2:

                    row[2]=data

                    writer.writerow(row)

                elif reference==3:

                    row[3]=data

                    writer.writerow(row)

            else:

                writer.writerow(row)

    with open("contact.csv","w",newline="") as ff1, open("temp.csv","r") as ff2:

        tempWriter=csv.writer(ff1)

        tempReader=csv.reader(ff2)

        for tempRow in tempReader:

            tempWriter.writerow(tempRow)

    print("\n>>>>Contact updated successfully<<<<")

    print("---------------------------------------------------\n")

# function will UpdateContact mobile number

def updateContact():

    print("Please enter the below details")

    fn=input("First Name : ")

    ln=input("Last Name : ")

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

        reader=csv.reader(f)

        for row in reader:

            if len(row)==0:

                continue

            elif row[0]==fn and row[1]==ln:

                print("Please press 'Y' for yes and 'N' for no")

                m1Update=input("Do you want to update Mobile1 [ Y | N ] : ")

                if m1Update.capitalize()=='Y':

                    m1New=input("Enter new Mobile1 : ")

                    helpUpdateContact(fn,ln,m1New,2)

                else:

                    pass

                m2Update=input("Do you want to update Mobile2 [ Y | N ] : ")

                if m2Update.capitalize()=='Y':

                    m2New=input("Enter new Mobile2 : ")

                    helpUpdateContact(fn,ln,m2New,3)

                else:

                    pass

                showMenu()

        else:

            print("\n>>>>Not a valid detail to update contact<<<<")

            print("---------------------------------------------------\n")

            showMenu()

def deleteContact():

    fn=input("First Name : ")

    ln=input("Last Name : ")

    df=pd.read\_csv("contact.csv")

    l1=list(df['FirstName'])

    l2=list(df['LastName'])

    if (fn in l1 and ln in l2):

        with open("contact.csv","r") as f1, open("temp.csv","w",newline="") as f2:

            reader=csv.reader(f1)

            writer=csv.writer(f2)

            for row in reader:

                if len(row)==0:

                    continue

                elif (row[0]==fn and row[1]==ln):

                    pass

                else:

                    writer.writerow(row)

            else:

                print("\n>>>>Contact Deleted successfully<<<<")

                print("---------------------------------------------------\n")

        with open("contact.csv","w",newline="") as f11, open("temp.csv","r") as f22:

                tempWriter=csv.writer(f11)

                tempReader=csv.reader(f22)

                for tempRow in tempReader:

                    tempWriter.writerow(tempRow)

        showMenu()

    else:

        print("\n>>>Not a valid detail to delete contact<<<<")

        print("---------------------------------------------------\n")

        showMenu()

def searchContact():

    print("Please enter the below details")

    fn=input("First Name : ")

    ln=input("Last Name : ")

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

        reader=csv.reader(f)

        for row in reader:

            if len(row)==0:

                continue

            elif row[0]==fn and row[1]==ln:

                print("\n>>>>Contact Found<<<<\n")

                print("Name : ",row[0],row[1])

                print("Contact Number : ",row[2]," ",row[3])

                print("\n---------------------------------------------------\n")

                showMenu()

        else:

            print("\n>>>>Contact Not Found<<<<")

            print("---------------------------------------------------\n")

            showMenu()

def showContact():

    df=pd.read\_csv("contact.csv")

    print("\n---------------------------------------------------\n")

    print(df)

    print("\n---------------------------------------------------\n")

    showMenu()

if \_\_name\_\_=='\_\_main\_\_':

showMenu()

**OUTPUT:**

\*\*\*\*Dear user, Welcome to your phone directory!\*\*\*\*\*

---------------------------------------------------

\*\*\*\*\*MENU BAR\*\*\*\*\*

[1] Create New Contact

[2] Add New Contact

[3] Update Contact

[4] Delete Contact

[5] Search Contact By Name

[6] Show All Contact

[0] EXIT

---------------------------------------------------

Enter your Choice : 1

First Name : Khushi

Last Name : Agarwal

Mobile Number : 9999999999

>>>>Contact added successfully<<<<

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\*\*\*\*\*MENU BAR\*\*\*\*\*

[1] Create New Contact

[2] Add New Contact

[3] Update Contact

[4] Delete Contact

[5] Search Contact By Name

[6] Show All Contact

[0] EXIT

---------------------------------------------------

Enter your Choice : 1

First Name : Puneet

Last Name : agarwal

Mobile Number : 8888888888

>>>>Contact added successfully<<<<

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\*\*\*\*\*MENU BAR\*\*\*\*\*

[1] Create New Contact

[2] Add New Contact

[3] Update Contact

[4] Delete Contact

[5] Search Contact By Name

[6] Show All Contact

[0] EXIT

---------------------------------------------------

Enter your Choice : 2

Mobile Number : 1111111111

First Name : Khushi

Last Name : Agarwal

>>>>Contact created successfully<<<<

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\*\*\*\*\*MENU BAR\*\*\*\*\*

[1] Create New Contact

[2] Add New Contact

[3] Update Contact

[4] Delete Contact

[5] Search Contact By Name

[6] Show All Contact

[0] EXIT

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Enter your Choice : 6

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FirstName LastName Mobile1 Mobile2

0 Puneet Agarwal 8888888888 NaN

1 Khushi Agarwal 9999999999 1.111111e+09

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\*\*\*\*\*MENU BAR\*\*\*\*\*

[1] Create New Contact

[2] Add New Contact

[3] Update Contact

[4] Delete Contact

[5] Search Contact By Name

[6] Show All Contact

[0] EXIT

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Enter your Choice : 3

Please enter the below details

First Name : Puneet

Last Name : Agarwal

Please press 'Y' for yes and 'N' for no

Do you want to update Mobile1 [ Y | N ] : n

Do you want to update Mobile2 [ Y | N ] : y

Enter new Mobile2 : 7777777777

>>>>Contact updated successfully<<<<

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\*\*\*\*\*MENU BAR\*\*\*\*\*

[1] Create New Contact

[2] Add New Contact

[3] Update Contact

[4] Delete Contact

[5] Search Contact By Name

[6] Show All Contact

[0] EXIT

---------------------------------------------------

Enter your Choice : 4

First Name : Khushi

Last Name : Agarwal

>>>>Contact Deleted successfully<<<<

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\*\*\*\*\*MENU BAR\*\*\*\*\*

[1] Create New Contact

[2] Add New Contact

[3] Update Contact

[4] Delete Contact

[5] Search Contact By Name

[6] Show All Contact

[0] EXIT

---------------------------------------------------

Enter your Choice : 6

---------------------------------------------------

FirstName LastName Mobile1 Mobile2

0 Puneet Agarwal 8888888888 7777777777

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\*\*\*\*\*MENU BAR\*\*\*\*\*

[1] Create New Contact

[2] Add New Contact

[3] Update Contact

[4] Delete Contact

[5] Search Contact By Name

[6] Show All Contact

[0] EXIT

---------------------------------------------------

Enter your Choice : 0

\*\*\*\*\*Exiting!\*\*\*\*

\*\*\*\*\*GoodBye User, Have a nice day!\*\*\*\*