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Introduction of Telephone Directory Management System

This project has been made on the topic "Telephone Directory Management System" using the Python programming language.

The everyday tasks of **Telephone Directory Management** keeping record of the Members which is a very tedious task if done manually. Also it becomes very difficult to search for the records in the manual registers.

To increase the efficiency and for the smooth working of the Telephone Directory, this program has been developed, which keeps the records of the Members.

Various options have been added to Add, Display, Modify, Delete and Search the records of the Members.

The data has been stored in Binary files.

Name of the Program:

Telephone_Directory.py

Data files used:

Directory.dat

Introduction of Python

As stated by the official Python website, <u>www.python.org</u> "Python is a programming language that lets you work more quickly and integrate your systems more effectively. You can learn to use Python and see almost immediate gains in productivity and lower maintenance costs."

Python was developed by **Guido van Rossum** in the late eighties and early nineties at the National Research Institute for Mathematics and Computer Science in the Netherlands.

Python is derived from many other languages, including ABC, Modula-3, C, C++, Algol-68, SmallTalk, and Unix shell and other scripting languages.

Python is copyrighted. Python source code is available under the GNU General Public License (GPL).

Python is now maintained by a core development team at the institute, although Guido van Rossum still holds a vital role in directing its progress. Many of the large organizations that make use of Python include Google, Yahoo, NASA, NetApp, Cisco, Intel, McAfee, Dropbox, VISA, Disney, YouTube, etc.

Python Features (Pluses):

- Easy-to-use: It is a very easy to use language with very simple syntax rules. It is a very high level language and thus very-very programmer friendly.
- 2. **Expressive language:** It is very easy to express the code's purpose in a fewer lines of code and a simple syntax.
- 3. Interpreted language: Python uses the interpreter, which means python converts the program line by line to machine language and executes it. It makes it easy to debug language and thus suitable for beginners to advanced users.
- 4. Its completeness: When you install Python, you get everything you need to do the work including readymade libraries for diverse functionalities such as emails, web-pages, databases, GUI development, network connections and many more. Thus, it is also called Python follows "Batteries included" philosophy.
- 5. **Portable/ Platform independent:** Python can run on a wide variety of hardware platforms and has the same interface on all platforms.
- 6. **Free & Open Source:** It is freely available to use and its code can be modified as it is an Open Source.
- 7. Variety of Usage/ Applications: Python has evolved into a powerful, complete and useful language over the years and is used for:
 - a. Scripting

e. Rapid prototyping

b. Web Applications

f. GUI programs

- c. Game development
- g. Database Applications
- d. System administration

- **8. Automatic garbage collection:** Automatic memory management system frees the programmer from bothering about memory management like allocating and de-allocating memory space.
- 9. **Easy integration:** It can be easily integrated with other programming languages like C, C++, Java, etc.

Source Code

```
import pickle
import os
class directory:
#Calling Constructor For Initializing Values
  def __init__(self,id,name,add,age,contact,homeno):
     self.id=id
     self.name=name
     self.add=add
    self.age=age
     self.contact=contact
     self.homeno=homeno
#Function to get Input from User
  def Input(self):
     print("Enter the Information: ")
     self.id=int(raw_input("Enter The ID: "))
     self.name=raw_input("Enter The Name: ")
     self.add=raw_input("Enter The Address: ")
     self.age=int(raw_input("Enter The Age: "))
     self.contact=int(raw_input("Enter The Mobile Number: "))
     self.homeno=int(raw_input("Enter The Landline Number: "))
#Function to Print the Outpur
  def Output(self):
    print "\n"
     print "ID: ",self.id
    print "Name: ",self.name
     print "Address: ",self.add
    print "Age: ",self.age
    print "Mobile Number: ",self.contact
    print "Landline Number: ",self.homeno
```

```
#Default Values
d=directory(0,"","",0,0,0)
d1=directory(0,"","",0,0,0)
#Function to Store Data in A Binary File by getting Data From the user
def Add():
  file=open("Directory.dat", "ab")
  d.Input()
  pickle.dump(d,file)
  print"Addtion Successful"
  file.close()
#Function to Display Data from the Binary File
def Display():
  file=open("Directory.dat","rb")
    print ("Directory:")
     while True:
       d=pickle.load(file)
       d.Output()
  except EOFError:
     pass
  file.close()
#Function to Modify data in the Binary File
def Modify():
  file1=open("Directory.dat", "rb")
  file2=open("temp.dat","wb")
  print"Enter the ID of the person whose details you want to modify: "
  d1.Input()
  try:
     while True:
       d=pickle.load(file1)
       if d1.id == d.id:
         pickle.dump(d1,file2)
       else:
```

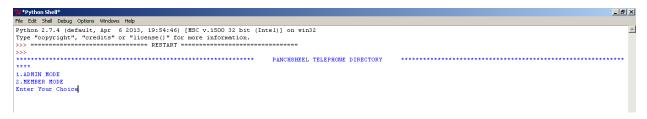
```
pickle.dump(d,file2)
  except EOFError:
    pass
  print"Modification Successful!"
  file1.close()
  file2.close()
  os.remove("Directory.dat")
  os.rename("temp.dat","Directory.dat")
#Function to Delete data in the Binary File
def Delete():
  file1=open("Directory.dat","rb")
  file2=open("temp.dat","wb")
  q=int(raw_input("Enter The ID: "))
  try:
    while True:
       d=pickle.load(file1)
       if d.id! = q:
         pickle.dump(d,file2)
  except EOFError:
    pass
  print"Deletion Successful!"
  file1.close()
  file2.close()
  os.remove("Directory.dat")
  os.rename("temp.dat","Directory.dat")
#Function to Search data in the Binary File
def Search():
  file=open("Directory.dat","rb")
  x=int(raw_input("Enter the of the person's ID who you want to search: "))
  found=0
  try:
    while True:
       d=pickle.load(file)
       if d.id==x:
         d.Output()
         found=1
```

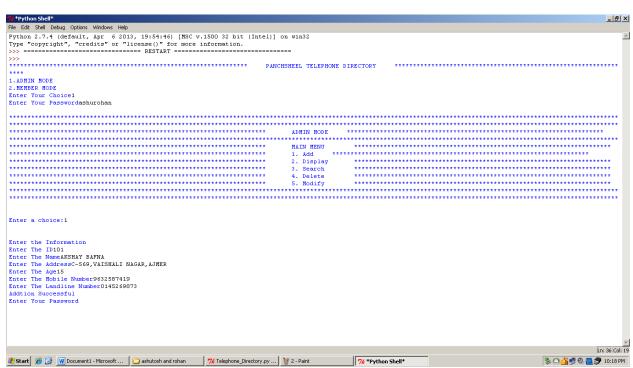
```
except EOFError:
    if found==0:
      print"ID not found---->Search Insuccessful!"
    pass
  file.close
#MAIN
while True:
  print "*"*65," "*3," TELEPHONE DIRECTORY"," "*3,"*"*65
  print "1.ADMIN MODE" #ADMIN MODE
  print "2.MEMBER MODE" #MEMBER MODE
  c=int(raw_input("Enter Your Choice: ")) #Password Protected File
  if c==1:
    pp=raw_input("Enter Your Password: ")
    if(pp=="playstation"): #Permiting for Entry in ADMIN mode
       while True:
         print
         print "*"*166
         print "*"*166
         print "*"*70," "*5,"ADMIN MODE"," "*3,"*"*70
         print "*"*166
         print "*"*70," "*5,"MAIN MENU"," "*6,"*"*70
         print "*"*70," "*5,"1. Add "," ","*"*70
         print "*"*70," "*5,"2. Display "," "*4,"*"*70
         print "*"*70," "*5,"3. Search"," "*6,"*"*70
         print "*"*70," "*5,"4. Delete"," "*6,"*"*70
         print "*"*70," "*5,"5. Modify"," "*6,"*"*70
         print "*"*166
         print "*"*166
         print "\n"
         ch=int(raw_input("Enter a choice: "))
         print "\n"
         if ch==1:
             Add()
         elif ch==2:
             Display()
         elif ch==3:
```

```
Search()
      elif ch==4:
          Delete()
      elif ch==5:
          Modify()
      else:
          print "YOU ARE OUT OF ADMIN MODE"
          print "\n"
          break
    else:
      print"WRONG PASSWORD---->ACCESS DENIED"
      break
elif c==2:
  # Main Function
  while True: #MEMBER MODE
    print "*"*165
    print "*"*165
    print "*"*75," "*5,"MEMBER MODE"," "*3,"*"*75
    print "*"*165
    print "*"*75," "*5,"MAIN MENU"," "*6,"*"*75
    print "*"*75," "*5,"1. Add "," ","*"*75
    print "*"*75," "*5,"2. Display "," "*4,"*"*75
    print "*"*75," "*5,"3. Search"," "*6,"*"*75
    print "Press any other key to exit "
    print "*"*165
    print "*"*165
    print "\n"
    ch=int(raw_input("Enter a choice: "))
    print "\n"
    if ch==1:
        Add()
    elif ch==2:
        Display()
    elif ch==3:
        Search()
    else:
        print "YOU ARE OUT OF MEMBER MODE"
        print "\n"
        break
```

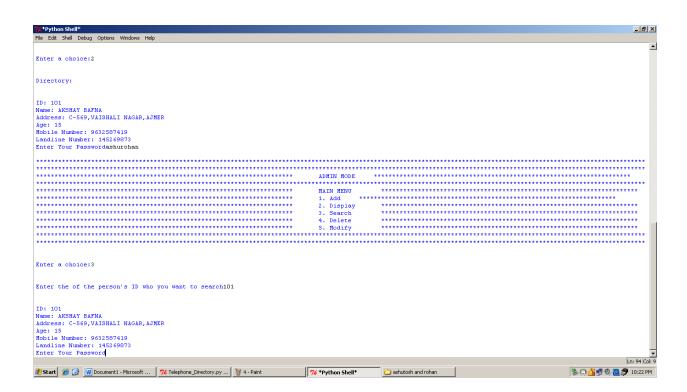
```
else:
    print "Thanks for visiting"
    print "\n"
    exit()
```

Outputs





Addtion Successful Enter Your Passwords WRONG PASSWORD>ACCESS DENIED **** 1.ADHIN HODE 2.MEMBER HODE Enter Your Choice1 Enter Your Passwordashurchan	PANCHSHEEL TELEPHONI	E DIRECTORY	***************************************	•••••	*******
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***************************************	ADMIN MODE	********	*******	*******	******
***************************************	*************	***********			******
***************************************	MAIN MENU	*******	********	*************	******
***************************************	I. Add	******	******	*******	******
***************************************	2. Display	*******	*******	*******	******
***************************************	3. Search	*******	******	*******	******
	4. Delete	********			
	5. Modify				
***************************************					******
Enter a choice:2					
Directory:					
ID: 101					
Name: AKSHAY BAFNA					
Address: C-569, VAISHALI NAGAR, AJMER					
Age: 15					
Mobile Number: 9632587419					
Landline Number: 145269873					_
Enter Your Password					V
					Ln: 70 Col: 19



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**********************	5. Modify	************	**************
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Enter a choice:5			
Enter the ID of the person whose details you want to modify Enter the Information			
Enter The ID101			
Enter The NameUDIT SHARMA			
Enter The AddressC-696, NEETI PATH, AJMER			
Enter The Age18			
Enter The Mobile Number963258889633			
Enter The Landline Number1235669589			
Modification Successful Enter Your Passwordashurohan			
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Enter a choice:4			
Enter a choice.4			
Enter The ID :101			
Deletion Successful			
Enter Your Password			
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**	
*******	2. Display
********	3. Search ************************************
Press any other key to exit	***************************************
***************************************	***************************************
Enter a choice:2	
block a cholocy.	
Directory:	
Directory:	
Directory:	
Directory: ID: 15 Name: SAMEER SINCH	
Directory: ID: 15 Name: SANEER SINGH Address: 15, BALDEV NAGAR, AJMER	
Directory: ID: 15 Name: SAMEER SINCH Address: 15, BALDEV NAGAR, AJMER Age: 26	
Directory: ID: 15 Name: SAMEER SINCH	

***************************************	***************************************
Enter a choice:3	
Enter the of the person's ID who you want to search15	
ID: 15	
Name: SAMEER SINGH	
Address: 15, BALDEV NAGAR, AJMER	
Age: 26	
Mobile Number: 8523697412	
Landline Number: 1256398745	
*************************	***********************
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************************	MEMBER MODE ************************************

***************************************	*****************************
*****************************	HAIN HENU ************************************

*************************	1. Add **********************************
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*****************************	2. Display ************************************

**********************	3. Search ************************************

**Python Shell*	_ @ ×
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****	**********
1.ADMIN HODE 2.HEMBER MODE Enter Your Choice1 Enter Your Password213 WRONG PASSWORD>ACCESS DENIED	

Bibliography

- https://en.wikipedia.org/wiki/Python_(programming_language)
- Hitchhiker's Guide to Python
- Computer Science with Python Sumita Arora