**Phone Book in Python Using Tkinter**

A contact book or address book is an application that stores the information (name,contact no, etc.) of people that you save in it. You can also edit and delete the contact.

The objective of this project is to create an Address book using python in which the user can add a new contact, edit and delete existing contact and view all the contact.

The user has to click on a button which functions the user wants to access eg – To edit a contact, the user has to first select a contact then click on view button then edit the contact and then click on edit button. To add a new contact user has to click on the add button.

**Project prerequisite**

We build the address book project with the help of Tkinter module and basic python concept.

Tkinter is a standard GUI library for rendering graphics

To install the library we use the pip install command in the command prompt:

pip install tkinter

**Project File Structure**

These are the step to build a contact book python project:

Importing module

Initializing window

Define buttons

Define functions

**Importing module**

from tkinter import \*

**Initializing window**

from tkinter import \*

root = Tk()

root.geometry('400x400')

root.config(bg = 'SlateGray3')

root.resizable(0,0)

root.title('DataFlair-AddressBook')

contactlist = [

['Sam', '8340116227'],

['Mukesh', '9876543210'],

['Abhijeet', '9833600137'],

['Vishal','8292176501'],

['Anjan', '8083065872'],

['Aggarwal' , '9557729603'],

['Shubham' , '8083056673'],

['JP' , '8578995332'],

['Pandey' , '2119876543'],

]

Name = StringVar()

Number = StringVar()

frame = Frame(root)

frame.pack(side = RIGHT)

scroll = Scrollbar(frame, orient=VERTICAL)

select = Listbox(frame, yscrollcommand=scroll.set, height=12)

scroll.config (command=select.yview)

scroll.pack(side=RIGHT, fill=Y)

select.pack(side=LEFT, fill=BOTH, expand=1)

**Tk()** use to initialized tkinter

**geometry()** sets the window width and height

**title()** used to set window’s tiltle

**resizable(0,0)** this command stop window to resize

**bg** use to set the background color of the window

Contacts’ information is stored in **contactlist**

Frame is like a container that is used to organized widgets

Here Scrollbar widget and Listbox widget is used to allow users to select from many options

**Define functions**

def Selected():

return int(select.curselection()[0])

def AddContact():

contactlist.append([Name.get(), Number.get()])

Select\_set()

def EDIT():

contactlist[Selected()] = [Name.get(), Number.get()]

Select\_set()

def DELETE():

del contactlist[Selected()]

Select\_set()

def VIEW():

NAME, PHONE = contactlist[Selected()]

Name.set(NAME)

Number.set(PHONE)

def EXIT():

root.destroy()

def RESET():

Name.set('')

Number.set('')

def Select\_set() :

contactlist.sort()

select.delete(0,END)

for name,phone in contactlist :

select.insert (END, name)

Select\_set()

**Selected()** function used to return selected value

**Addcontact()** function used to add new contact

**EDIT()** function will edit existing contact

**DELETE()** function will delete selected contact

**VIEW()** function will view selected contact

**EXIT()** used to destroy mainloop

**RESET()** will set the name and number field to empty string

**Select\_set()** will sort the manage the contactlist and also used in other functions

**Define buttons and labels**

Label(root, text = 'NAME', font='arial 12 bold', bg = 'SlateGray3').place(x= 30, y=20)

Entry(root, textvariable = Name).place(x= 100, y=20)

Label(root, text = 'PHONE NO.', font='arial 12 bold',bg = 'SlateGray3').place(x= 30, y=70)

Entry(root, textvariable = Number).place(x= 130, y=70)

Button(root,text=" ADD", font='arial 12 bold',bg='SlateGray4', command = AddContact).place(x= 50, y=110)

Button(root,text="EDIT", font='arial 12 bold',bg='SlateGray4',command = EDIT).place(x= 50, y=260)

Button(root,text="DELETE", font='arial 12 bold',bg='SlateGray4',command = DELETE).place(x= 50, y=210)

Button(root,text="VIEW", font='arial 12 bold',bg='SlateGray4', command = VIEW).place(x= 50, y=160)

Button(root,text="EXIT", font='arial 12 bold',bg='tomato', command = EXIT).place(x= 300, y=320)

Button(root,text="RESET", font='arial 12 bold',bg='SlateGray4', command = RESET).place(x= 50, y=310)

root.mainloop()

**Label()** widget used when we want to display text

**Entry()** widget used when we want to create an input text field.

**Button()** widget used to display button

**root** is the name of our window

**text** which display on the label as title of that label

**font** in which form the text will be write

**textvariable** used to retrieve the text to entry widget

**place()** – place widgets at specific position

**command** called the specific function when the button will clicked

**Final Output**

