GE-103
Creating Telephone Directory using GUI in Python

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Abstract— **This document gives brief explanation about the Telephone Directory. It provides brief introduction about the Python libraries used for making Graphical User Interface (GUI) and for creating Databases. It also gives the reader information regarding various components and functions present in the Telephone Directory created by us.**

Keywords— **1) GUI (Graphical User Interface)**
　　　　　　　2) Tkinter
　　　　　　　3) Database
　　　　　　　4) Widget
　　　　　　　5) SQLite

I. INTRODUCTION

GUI (Graphical User Interface) are special types of programmes which will create a mode of communication between the user and the computer system.
Telephone Directory is a file which stores and records information about various telephone numbers.
We will create a Telephone Directory through Tkinter, which is a standard GUI library for Python.

II. OBJECTIVE

A. *Telephone Directory:*
　1) *About Telephone Directory:*
Our aim is to create a Telephone Directory, which stores the information about various contacts according to the user's wish.
　2) *Features of Telephone Directory:*
This Telephone Directory will empower the user to add, store, edit and delete various telephone numbers according to the requirement of the user in the Database file.

B. *About GUI:*
　1) Introduction: The graphical user interface is aninterface that allows users to interact with the computer system through graphical icons ,command ,labels, buttons or text.[1]

　2) About Tkinter: Tkinter is a Python interface to the Tk GUI toolkit. Tkinter is included with Linux, Microsoft Windows and macOS installs of Python.[2]

　3) About SQLite: SQLite is a database engine which is a library that software developers embed in their apps.[3]

C. *Components of Tkinter*:
　1) Entry Box: The Entry widget is used to accept input text and integer from the user.

　2) Label: The Label widget creates a display box containing specific text or integer.

　3) Frame: The Frame widget contains the information and position of other widgets.

　4) Button: The Button widget perform a specific function when clicked.

D. *Functions in Tkinter:*
    1) submit(): This will enable the user to add any contact of his/her choice to the Database
    2) edit(): This will enable the user to edit any contact of his/her choice to the Database
    3) delete(): This will enable the user to delete any contact of his/her choice to the Database
    4) show(): This will enable the user to avail information about any contact of his/her choice to the Database
    5) query(): This will enable the user to avail information about all the contacts present in the Database

III. CONCLUSIONS

A. *Telephone Directory (Project):*
    1) The Telephone Directory contains information of first name, last name, address and the phone number of the contact.
    2) The Telephone Directory is capable of performing functions like submit, edit, show and delete any contact as per the choice of the user using specific Labels, Buttons and Commands.
    3) Each entry in the database is given a unique Id through which we can edit and delete any particular information of any contact as per the choice of the user. This function requires the Id of the contact that the user wants to see. After matching the Id it will perform the functions (edit and delete) for that particular contact.

    4) We can display the particulars of a contact by using the show function. This function requires the first name of the contact that the user wants to see. After matching the first name it will display the data of that particular contact.

B. *Video Explaining the Python Code:*
    1) The video attached explains about the various components of tkinter like label, button, frames and entry box.
    2) We come across the uses and purposes of various functions such as submit, edit, delete and show.
    3) We came across the difference between show and edit function. In the edit function the function displays and updates the entry as per the user's choice. Whereas in the show function only the details of the particular contacts are displayed.

REFERENCES

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