Experiment No. 8
Creating GUI with python containing widgets such as labels, textbox, radio, checkboxes and custom dialog boxes
Date of Performance:
Date of Submission:

Experiment No. 8

Title: Creating GUI with python containing widgets such as labels, textbox, radio, checkboxes and custom dialog boxes

Aim: To study and create GUI with python containing widgets such as labels, textbox, radio, checkboxes and custom dialog boxes

Objective: To introduce GUI, TKinter in python

Theory:

Python offers multiple options for developing GUI (Graphical User Interface). Out of all the GUI methods, tkinter is the most commonly used method. It is a standard Python interface to the Tk GUI toolkit shipped with Python. Python with tkinter is the fastest and easiest way to create the GUI applications. Creating a GUI using tkinter is an easy task.

To create a tkinter app:

Importing the module – tkinter

Create the main window (container)

Add any number of widgets to the main window

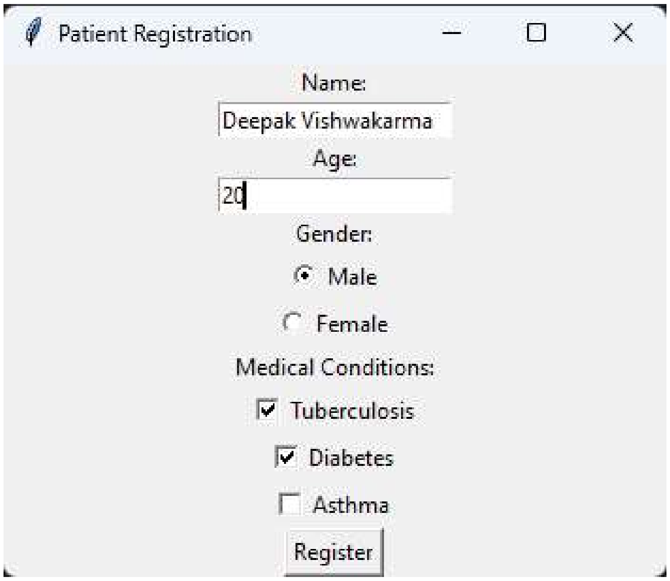
Apply the event Trigger on the widgets.

Importing tkinter is same as importing any other module in the Python code. Note that the name of the module in Python 2.x is 'Tkinter' and in Python 3.x it is 'tkinter'.

Code:

```
import tkinter as tk
def register_patient():
    name = entry_name.get()
    age = entry_age.get()

    gender = gender_var.get()
    if gender == 1:
        gender = "Male"
    else:
        gender = "Female"

    medical_conditions = ""
    if condition1_var.get() == 1:
        medical_conditions += "Tuberculosis, "
    if condition2_var.get() == 1:
        medical_conditions += "Diabetes, "
    if condition3_var.get() == 1:
        medical_conditions += "Asthma, "

    print("Patient registered successfully!")
    print("Name: " + name)
    print("Age: " + age)
    print("Gender: " + gender)
    print("Medical Conditions: " + medical_conditions)

root = tk.Tk()
root.title("Patient Registration")

label_name = tk.Label(root, text="Name:")
label_name.pack()
entry_name = tk.Entry(root)
entry_name.pack()

label_age = tk.Label(root, text="Age:")
label_age.pack()
entry_age = tk.Entry(root)
entry_age.pack()

gender_var = tk.IntVar()
label_gender = tk.Label(root, text="Gender:")
label_gender.pack()
radio_male = tk.Radiobutton(root, text="Male", variable=gender_var, value=1)
radio_male.pack()
radio_female = tk.Radiobutton(root, text="Female", variable=gender_var, value=2)
radio_female.pack()

condition1_var = tk.IntVar()
condition2_var = tk.IntVar()
condition3_var = tk.IntVar()
label_conditions = tk.Label(root, text="Medical Conditions:")
label_conditions.pack()
check_condition1 = tk.Checkbutton(root, text="Tuberculosis", variable=condition1_var)
check_condition1.pack()
check_condition2 = tk.Checkbutton(root, text="Diabetes", variable=condition2_var)
check_condition2.pack()
check_condition3 = tk.Checkbutton(root, text="Asthma", variable=condition3_var)
check_condition3.pack()

button_register = tk.Button(root, text="Register", command=register_patient)
button_register.pack()

root.mainloop()
```

Output:



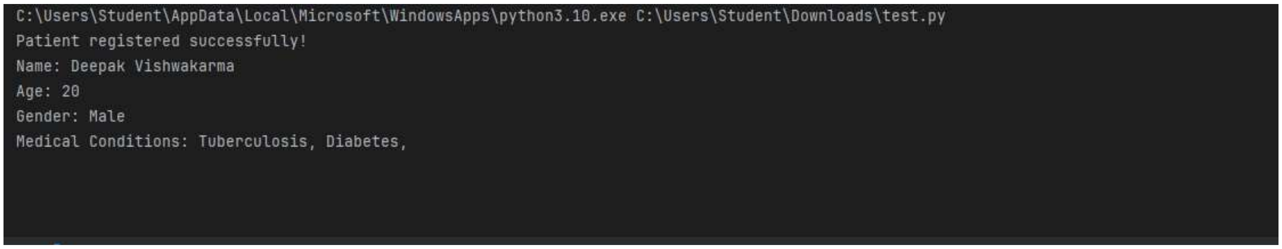
Patient Registration

Name:
Deepak Vishwakarma

Age:
20

Gender:
● Male
○ Female

Medical Conditions:
☑ Tuberculosis
☑ Diabetes
□ Asthma



```
C:\Users\Student\AppData\Local\Microsoft\WindowsApps\python3.10.exe C:\Users\Student\Downloads\test.py
Patient registered successfully!
Name: Deepak Vishwakarma
Age: 20
Gender: Male
Medical Conditions: Tuberculosis, Diabetes,
```

Conclusion:

Thus we successfully developed the GUI Using tkinter.