

Date :- 8/16/25
Topic :- Use of tkinter module for UI design

Aim:- To design a simple GUI application using the Tkinter module in Python to collect and display student details such as name, Roll Number, Department, and email.

Algorithm

1. Start the program.
2. Import the tkinter module and message box for UI components.
3. Create the main window using `tk()` and set the window title, size and background colour.
4. Add labels and entry widgets for:
 - Name
 - Roll Number
 - Department
 - Email.
5. Create two buttons.
 - . submit :- fetch and display entered details in a message box.
 - . clear :- fields all input fields to empty
6. Define functions:-
 - submit - `def submit():` collects and displays student data
 - clear - `def clear():` clear all entry fields.
7. Place all widgets using grid or pack layout.

8. Run the tkinter main loop using root.

mainloop()

9. End the program.

Program:

```
from tkinter import *
from tkinter import messagebox

def submit():
    name = name_entry.get()
    roll = roll_entry.get()
    dept = dept_entry.get()
    email = email_entry.get()

    if name == "" or roll == "" or dept == "":
        email = " "
        messagebox.showwarning("Input - Error", "All fields are required!")
    else:
        info = "Student Details = \nName: {} \nRoll Number: {} \nDepartment: {} \nEmail: {}"
        messagebox.showinfo("Submitted Details", info)

def clear():
    name_entry.delete(0, END)
    roll_entry.delete(0, END)
    dept_entry.delete(0, END)
    email_entry.delete(0, END)
```

Sample Input:-

Name :- Rahul Sharma.

Roll Number :- 102

Department :- Computer Science

Email :- rahul.sharma@gmail.com

Output:-

Student details:

Name :- Rahul Sharma

Roll Number :- 102

Department :- Computer Science

Email :- rahul.sharma@gmail.com

```
# main window
root = Tk()
root.title("Student Information Form")
root.geometry("400 x 350")
root.configure(bg="#d3d3d3")
label(root, text="Student Information Form")
font = ("Arial", 16, "bold")
label(root, text="Student Information Form", font=font)
label.pack(pady=10)
frame = Frame(root, bg="#d3d3d3")
frame.pack(pady=10)
label(frame, text="Name", font=("Arial", 12), bg="#d3d3d3", fg="black", relief="solid", borderwidth=1, name="name", row=0, column=0, sticky="w", padx=10).grid(row=0, column=0, sticky="w", padx=10)
name_entry = Entry(frame, width=30)
name_entry.grid(row=0, column=1)
label(frame, text="Roll Number:", font=("Arial", 12), bg="#d3d3d3", fg="black", relief="solid", borderwidth=1, roll="roll", row=1, column=0, sticky="w", padx=10).grid(row=1, column=0, sticky="w", padx=10)
roll_entry = Entry(frame, width=30)
roll_entry.grid(row=1, column=1)
label(frame, text="Department:", font=("Arial", 12), bg="#d3d3d3", fg="black", relief="solid", borderwidth=1, department="department", row=2, column=0, sticky="w", padx=10).grid(row=2, column=0, sticky="w", padx=10)
department_entry = Entry(frame, width=30)
department_entry.grid(row=2, column=1)
label(frame, text="Email:", font=("Arial", 12), bg="#d3d3d3", fg="black", relief="solid", borderwidth=1, email="email", row=3, column=0, sticky="w", padx=10).grid(row=3, column=0, sticky="w", padx=10)
email_entry = Entry(frame, width=30)
email_entry.grid(row=3, column=1)
```

ss = *# dict 2) grid (row=3, column=0, sticy=w)

email_entry = Entry (frame, width=20)

email_entry.grid (row=3, column=1)

button (root, text="submit", width=12, bg="yellow",
fg="white", command = submit_details). pack

button (root, text="clear", width=12, bg="#444366",
fg="white", command = clear_field). pack

(packer=c)

root.mainloop()

VEL TECH	
EX	11
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	5
RECORD (5)	5
TOTAL (20)	15
SIGN WITH DATE	

~~Result
was~~ the student
16/10 successfully

information from ~~root~~
creates using Tkinter
16/10/RJ