

9.	24/09/25	Implement Exceptions and Exception Handling in Python
10.	24/09/25	Use the Matplotlib Module for plotting in Python
11.	08/10/25	Use the Tkinter Module for UI design
12.	08/10/25	Simulate gaming concepts Using Pygame

15

(A) 15 hours

8/10/25 Task-11: Use tKinter module for  
GUI 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: Reset all input fields to empty
6. Define functions:
  - submit - details (): Collects and displays student data
  - clear - fields (): Clears 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 message box
def submit - details ():
    name = name - entry . get ()
    roll = roll entry . get ()
    dept = dept - entry . get ()
    email = email - entry . get ()
    if name == "" or roll == "" or dept == "" or email
    == " ":
```

message box . show warning ("Input Error", "All fields are required :")

else:  
info = f "student Details :\n Name: {name}\n Roll Number: {roll}\n Department: {dept}\n Email: {email}"

message box . showinfo ("Submitted Details", info)

def clear\_fields():

name\_entry.delete(0, END)

roll\_entry.delete(0, END)

dept\_entry.delete(0, END)

email\_entry.delete(0, END)

# main window

root = Tk()

root.title("Student Information Form")

root.geometry("400x350")

root.configure(bg = "#d1f0f7")

label(root, text = "Student Information Form", font = "Arial",  
16, bold), bg = "#d1f0f7").pack(pady = 10)

frame = frame(root, bg = "#d1f0f7")

frame.pack(pady = 10)

Label(frame, text = "Name:", font = ("Arial", 12), bg = "#d1f0f7"),  
grid(row = 0, column = 0, sticky = W, pady = 1)

name\_entry = entry(frame, width = 30)

name\_entry.grid(row = 0, column = 1)

Label(frame, text = "Roll Number:", font = ("Arial", 12), bg =  
"#d1f0f7"), grid(row = 1, column = 0, sticky = W)

roll\_entry = entry(frame, width = 30)

roll\_entry.grid(row = 1, column = 1)

Label(frame, text = "Department:", font = ("Arial", 12), bg =  
"#d1f0f7"), grid(row = 2, column = 0, sticky = W)

dept\_entry = entry(frame, width = 30)

dept\_entry.grid(row = 2, column = 1)

label(frame, text = "Email:", font = ("Arial", 12),

bg = "#d1f0f7").grid(row = 2, column = 0, sticky = W)

26. Write a program to print the following pattern.

1 2 3 4 5

1 2 3 4 5 6 7 8 9

1 2 3 4 5 6 7 8 9 10 11

1 2 3 4 5 6 7 8 9 10 11 12 13

Input:

Name: Rahul Sharma

Roll Number: 102

Department: Computer Science (0113, 0) 0113, 0113 - Name

Email : rahul.sharma@gmail.com work@work.com

Output:

Student details:

Name: Rahul Sharma

Roll Number: 102

Department: Computer Science (0113, 0) 0113, 0113 - Name

Email: sharma@gmail.com work@work.com

(0113, 0) 0113, 0113 - Name

(l = length, w = width, r = radius, pi = 3.14159)

(a = area, s = semi\_perimeter)

(c = circumference, o = 0.01) 0.01 \* pi \* r \* r

= pi \* r \* r + 2 \* pi \* r \* l + 2 \* pi \* r \* r

(a = area, s = semi\_perimeter)

(c = circumference, o = 0.01) 0.01 \* pi \* 2 \* s

= 2 \* pi \* s + pi \* r \* r + 2 \* pi \* r \* l

(a = area, s = semi\_perimeter)

(c = circumference, o = 0.01) 0.01 \* pi \* 2 \* s

(l = length, r = radius)

(a = area, s = semi\_perimeter)

(c = circumference, o = 0.01) 0.01 \* pi \* 2 \* s

(a = area, s = semi\_perimeter)

(c = circumference, o = 0.01) 0.01 \* pi \* 2 \* s

```

email_entry = Entry (frame , width= 20)
email_entry.grid (row = 2, column = 1)
button (root, text = "Submit", width = 12, bg = "#4CAF50",
fg = "white", command = submit_details).pack
button (root, text = "Clear", width = 12, bg = "#FF4433",
fg = "white", command = clear_fields).pack (pady = 5)
root. mainloop()

```

VEL TECH - CSE	
EX NO.	11
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	5
RECORD (5)	1
TOTAL (20)	15
SIGN WITH DATE	

Result:

The student information from GUI was successfully  
Created using Tkinter.

15/10/2025