PYTHON PROJECT

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**Branch:** MCA **Section/Group: B**

**Semester: 1**  **Date of Performance:**

**Subject Name:** Python Programming **Subject Code:** 24CAH-606

**Q. Title of Project :- Creating Login and Registration form using Tkinter**

**Aim/Overview of the practical:**

1. **Task to be done:**

 Create a **login form** with fields like **username** and **password**.

 Create a **registration form** that stores user credentials.

 Use **Tkinter widgets** like Entry, Label, Button for GUI components.

 Display appropriate **messages** based on the user's actions (login success/failure).

**2. Code for experiment/practical:**

from tkinter import \*

import os

def register():

    global register\_screen

    register\_screen = Toplevel(main\_screen)

    register\_screen.title("Register")

    register\_screen.geometry("300x250")

    global username

    global password

    global username\_entry

    global password\_entry

    username = StringVar()

    password = StringVar()

    Label(register\_screen, text="Please enter details below", bg="cyan").pack()

    Label(register\_screen, text="").pack()

    username\_lable = Label(register\_screen, text="Username \* ")

    username\_lable.pack()

    username\_entry = Entry(register\_screen, textvariable=username)

    username\_entry.pack()

    password\_lable = Label(register\_screen, text="Password \* ")

    password\_lable.pack()

    password\_entry = Entry(register\_screen, textvariable=password, show='\*')

    password\_entry.pack()

    Label(register\_screen, text="").pack()

    Button(register\_screen, text="Register", width=10, height=1, bg="cyan", command = register\_user).pack()

def login():

    global login\_screen

    login\_screen = Toplevel(main\_screen)

    login\_screen.title("Login")

    login\_screen.geometry("300x250")

    Label(login\_screen, text="Please enter details below to login").pack()

    Label(login\_screen, text="").pack()

    global username\_verify

    global password\_verify

    username\_verify = StringVar()

    password\_verify = StringVar()

    global username\_login\_entry

    global password\_login\_entry

    Label(login\_screen, text="Username \* ").pack()

    username\_login\_entry = Entry(login\_screen, textvariable=username\_verify)

    username\_login\_entry.pack()

    Label(login\_screen, text="").pack()

    Label(login\_screen, text="Password \* ").pack()

    password\_login\_entry = Entry(login\_screen, textvariable=password\_verify, show= '\*')

    password\_login\_entry.pack()

    Label(login\_screen, text="").pack()

    Button(login\_screen, text="Login", width=10, height=1, command = login\_verify).pack()

def register\_user():

    username\_info = username.get()

    password\_info = password.get()

    file = open(username\_info, "w")

    file.write(username\_info + "\n")

    file.write(password\_info)

    file.close()

    username\_entry.delete(0, END)

    password\_entry.delete(0, END)

    Label(register\_screen, text="Registration Success", fg="green", font=("calibri", 11)).pack()

def login\_verify():

    username1 = username\_verify.get()

    password1 = password\_verify.get()

    username\_login\_entry.delete(0, END)

    password\_login\_entry.delete(0, END)

    list\_of\_files = os.listdir()

    if username1 in list\_of\_files:

        file1 = open(username1, "r")

        verify = file1.read().splitlines()

        if password1 in verify:

            login\_sucess()

        else:

            password\_not\_recognised()

    else:

        user\_not\_found()

def login\_sucess():

    global login\_success\_screen

    login\_success\_screen = Toplevel(login\_screen)

    login\_success\_screen.title("Success")

    login\_success\_screen.geometry("150x100")

    Label(login\_success\_screen, text="Login Success").pack()

    Button(login\_success\_screen, text="OK", command=delete\_login\_success).pack()

def password\_not\_recognised():

    global password\_not\_recog\_screen

    password\_not\_recog\_screen = Toplevel(login\_screen)

    password\_not\_recog\_screen.title("Success")

    password\_not\_recog\_screen.geometry("150x100")

    Label(password\_not\_recog\_screen, text="Invalid Password ").pack()

    Button(password\_not\_recog\_screen, text="OK", command=delete\_password\_not\_recognised).pack()

def user\_not\_found():

    global user\_not\_found\_screen

    user\_not\_found\_screen = Toplevel(login\_screen)

    user\_not\_found\_screen.title("Success")

    user\_not\_found\_screen.geometry("150x100")

    Label(user\_not\_found\_screen, text="User Not Found").pack()

    Button(user\_not\_found\_screen, text="OK", command=delete\_user\_not\_found\_screen).pack()

def delete\_login\_success():

    login\_success\_screen.destroy()

def delete\_password\_not\_recognised():

    password\_not\_recog\_screen.destroy()

def delete\_user\_not\_found\_screen():

    user\_not\_found\_screen.destroy()

def main\_account\_screen():

    global main\_screen

    main\_screen = Tk()

    main\_screen.geometry("300x250")

    main\_screen.title("Account Login")

    Label(text="Select Your Choice", bg="cyan", width="300", height="2", font=("Calibri", 13)).pack()

    Label(text="").pack()

    Button(text="Login", height="2", width="30", command = login).pack()

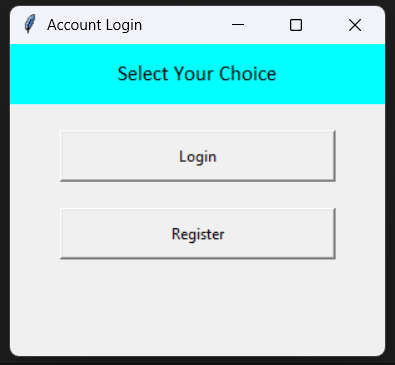
    Label(text="").pack()

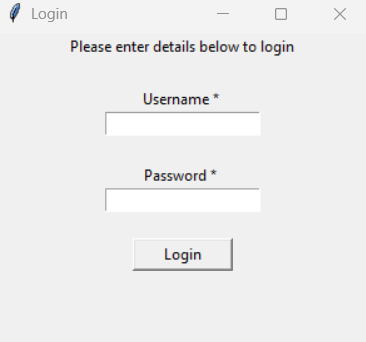
    Button(text="Register", height="2", width="30", command=register).pack()

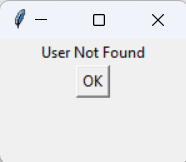
    main\_screen.mainloop()

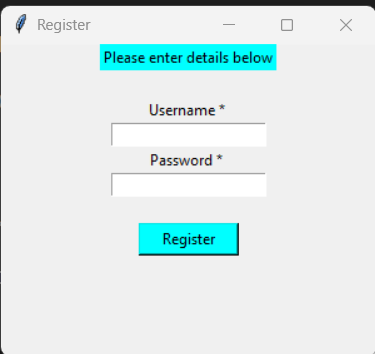
main\_account\_screen()

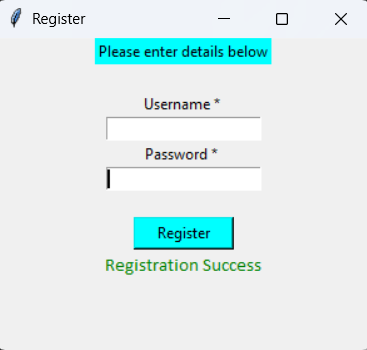
1. **Result/Output:**

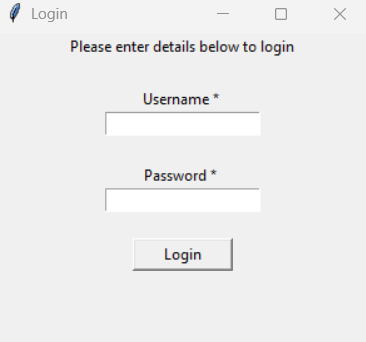














1. **Learning outcomes (What I have learnt):**

 How to **create GUI applications** using Tkinter in Python.

 How to **use widgets** like Entry, Label, and Button.

 How to implement **event handling** and display **popup messages** using messagebox.

 Structuring **login and registration logic** in a Tkinter application