

Int-213_Python Project

On

Capstone Supervisor Allocation Portal

School of Computer Science and Engineering



Capstone Supervisor Allocation Portal For
LPU Students Using Python

** Submitted To **Navpreet Rupal** (Faculty
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Topic -> Capstone Supervisor Allocation

Portal for LPU Students

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Acknowledgement

I *Abhishek Kumar* and my teammates *_Sanjay Kumar Nayak _and _ SAKSHAM BAJPAI _* have taken efforts to complete this project. However, it would not have been possible without the kind support and help of my professor **_ Navpreet Rupal** (Faculty INT-213).

I would like to extend my sincere thanks to all those who helped with the project & also for their support in completing the project. This project helped me and my team members hone our Python programming skills and learn how to use programming in real life. There were a lot of online resources that I referred to while preparing the project.

**** Summary****

The project titled '**Capstone supervisor allocation portal for LPU students using python**' is a GUI approach to create a software that helps in allocating supervisors to various registered students for their capstone project.

INTRODUCTION

In this project we have made a **Capstone Supervisor Allocation Portal**, the technology that we have used is solely **Python Tkinter**. `_Tkinter_` is the standard GUI (Graphical User Interface) library for *Python*. `_Python_` when combined with `_Tkinter_` provides a fast and easy way to create GUI applications. `_Tkinter_` provides a powerful object-oriented interface to the Tk GUI toolkit. This project has been divided into two segments: -

1. ****Student Segment**** which helps new students register for the supervisor allocation and pre-registered students to login and check the name of their supervisor and their basic details.
2. ****Supervisor Segment**** which helps new supervisors to register for his availability and pre-registered supervisors to check the name of allocated students under them and their basic details.

BASIC MODULE DIVISION

Opening Student Window

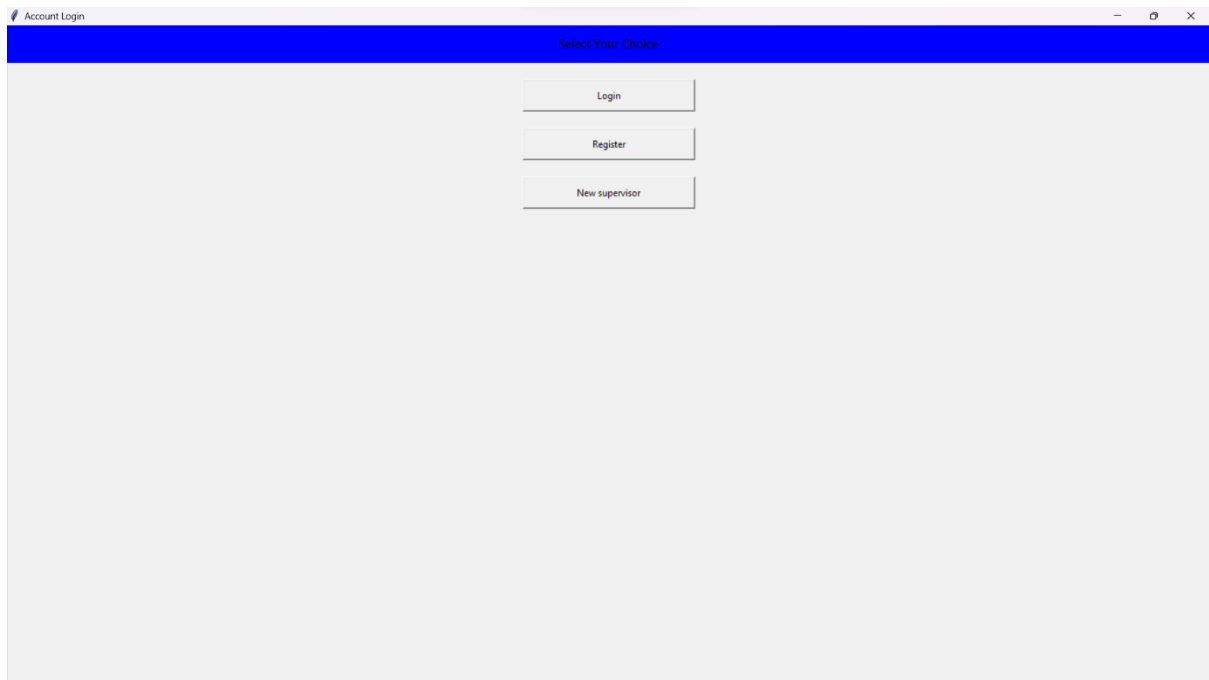
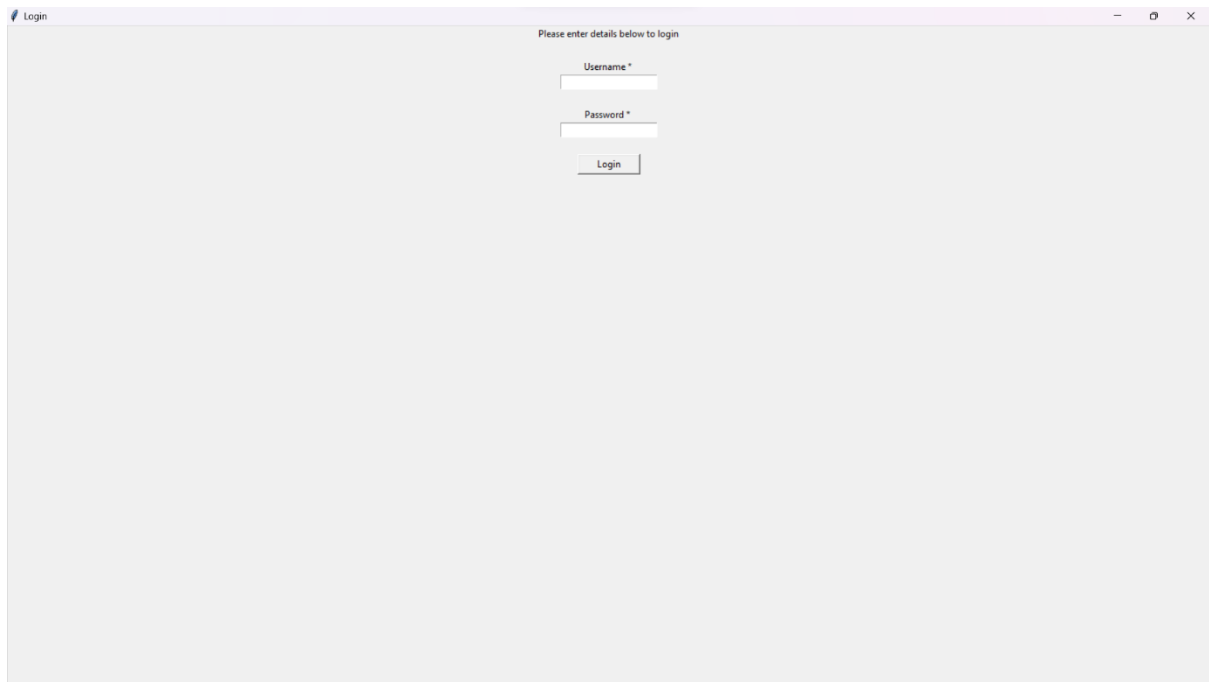


Fig 1

This is the first window that opens for the students. It has three buttons the first one is _the login _button, when clicked it opens the login window. The second button is the *Register* button, when this button is clicked it opens a window for new registrations. The third is the _New Supervisor _button, which takes the student to the _login _window and when the student is logged in the student is taken to the form window which needs to be filled to the new supervisor.

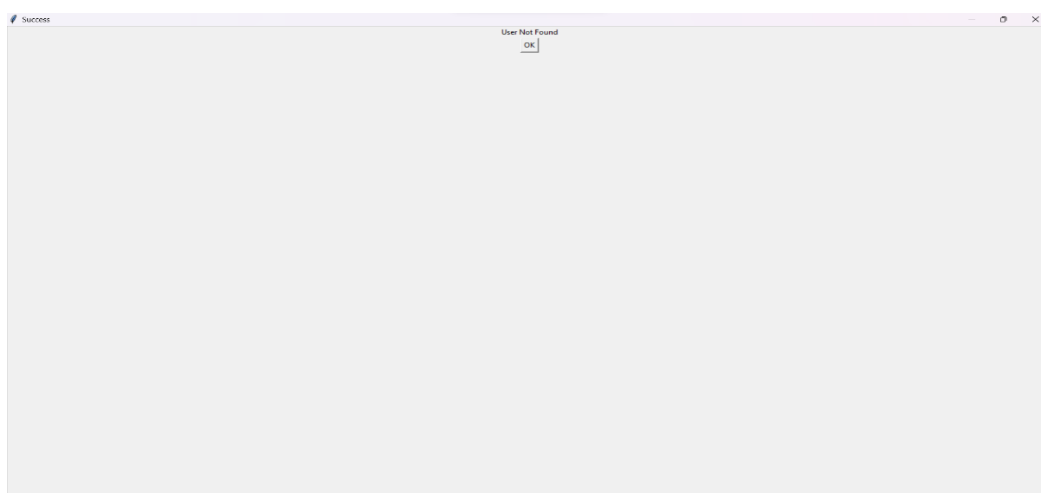
Student Login Window



A screenshot of a student login window. The window has a title bar with the text "Login" and standard window controls. The main content area is light gray and contains a centered login form. The form has a title "Please enter details below to login" and two input fields: "Username *" and "Password *". Below the password field is a "Login" button.

Fig 2

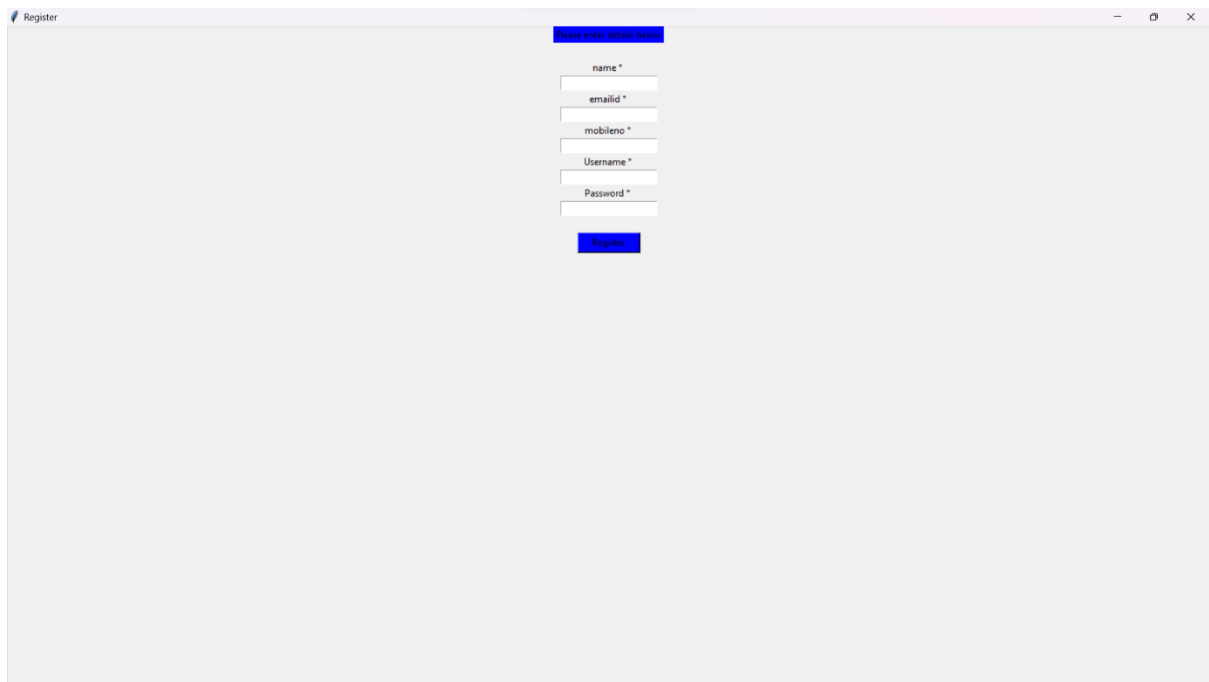
Now, this is the *login* window where the student is taking is the *_login _*button is pressed. The *_login _form* requires the *_Username _*and *Password* of the already registered student.



A screenshot of a success dialog box. The window has a title bar with the text "Success" and standard window controls. The main content area is light gray and contains a centered message "User Not Found" with an "OK" button below it.

Fig 3

New Student's Registration



The image shows a software window titled "Register" with a standard Windows-style title bar (minimize, maximize, close buttons). Inside the window, there is a registration form. At the top of the form area, there is a blue button labeled "Please enter details below". Below this button, there are five text input fields, each with a label and an asterisk indicating it is required: "name *", "emailid *", "mobileno *", "Username *", and "Password *". The "Password *" field has a small icon on the right side of the input box, likely for toggling password visibility. At the bottom of the form, there is a blue button labeled "Register".

Fig 4

This is the window that opens when the student presses the *New User* button in the opening window. This form contains five fields, so when a student fills this and press the *Registered* button he or she gets registered and the data is stored in the database.

New Supervisor's Login Window

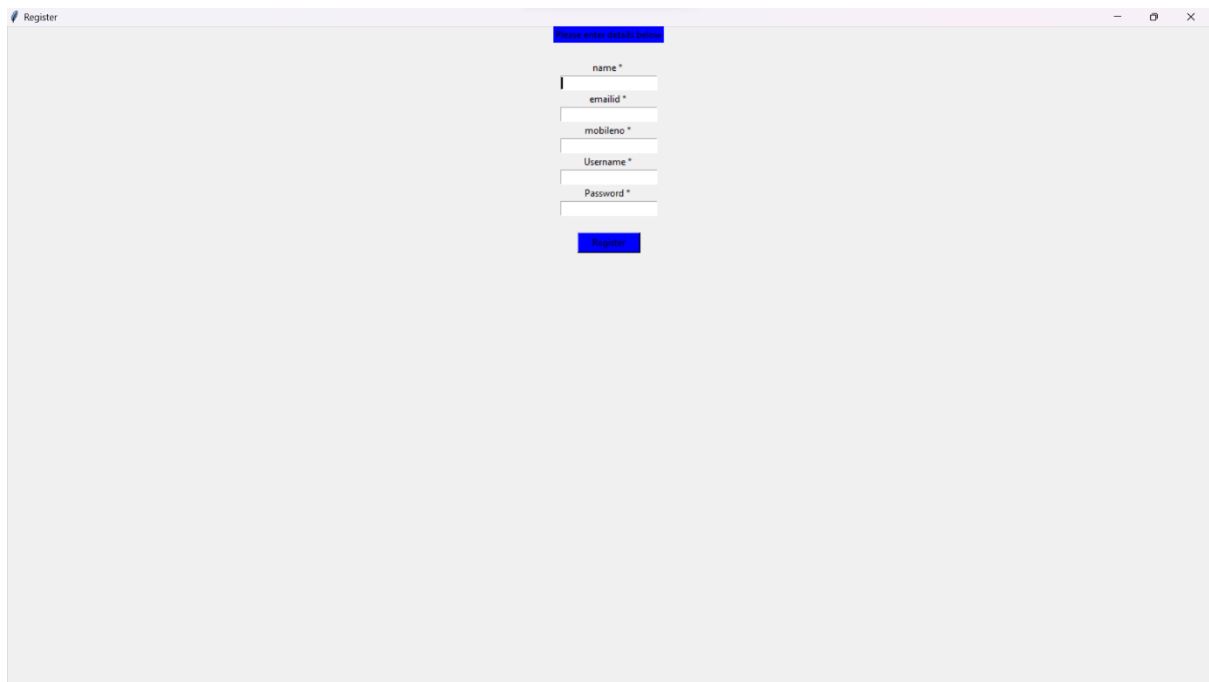
A screenshot of a web application window titled "Register". The window has a light gray background. In the top right corner, there are standard window control buttons (minimize, maximize, close). On the right side of the window, there is a vertical stack of input fields and a button. The input fields are labeled "name *", "emailid *", "mobilen *", "Username *", and "Password *". Each field has a small asterisk indicating it is required. Below the "Password *" field is a blue button labeled "Register".

Fig 5

This is the _ Login_ window which opens when a supervisor or user clicks the login button. It is the same as the login window for the students. An already registered user needs to fill in the _Username _and the _Password _credentials to log in.

****Reference****

1. [GeeksforGeeks.org](https://www.geeksforgeeks.org/)
2. [StackOverflow](https://stackoverflow.com/)
3. [TutorialsPoint](https://www.tutorialspoint.com/)

ANNEXURE-A:

```
from tkinter import *
```

```
import os
```

```
# Designing window for registration
```

```
def register():
```

```
    global register_screen
```

```
    register_screen = Toplevel(main_screen)
```

```
    register_screen.title("Register")
```

```
    register_screen.geometry("300x250")
```

```
    global name
```

```
    global emailid
```

```
    global mobileno
```

```
    global username
```

```
    global password
```

```
    global name_entry
```

```
    global emailid_entry
```

```
    global mobileno_entry
```

```
    global username_entry
```

```
global password_entry
```

```
name = StringVar()
```

```
emailid = StringVar()
```

```
mobilenno = StringVar()
```

```
username = StringVar()
```

```
password = StringVar()
```

```
Label(register_screen, text="Please enter details below",  
bg="blue").pack()
```

```
Label(register_screen, text="").pack()
```

```
name_label = Label(register_screen, text="name * ")
```

```
name_label.pack()
```

```
name_entry = Entry(register_screen, textvariable=name)
```

```
name_entry.pack()
```

```
emailid_label = Label(register_screen, text="emailid * ")
```

```
emailid_label.pack()
```

```
emailid_entry = Entry(register_screen, textvariable=emailid)
```

```
emailid_entry.pack()
```

```
mobilenno_label = Label(register_screen, text="mobilenno * ")
```

```
mobilenno_label.pack()
```

```
mobilenno_entry = Entry(register_screen, textvariable=mobilenno)
```

```
mobilenno_entry.pack()
```

```

username_label = Label(register_screen, text="Username * ")
username_label.pack()

username_entry = Entry(register_screen, textvariable=username)
username_entry.pack()

password_label = Label(register_screen, text="Password * ")
password_label.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="blue", command = register_user).pack()

#new supervisor
def newsupervisor():

    global newsupervisor_screen

    newsupervisor_screen = Toplevel(main_screen)

    newsupervisor_screen.title("Register")

    newsupervisor_screen.geometry("300x250")


global name

global emailid

global mobilenumber

```

global username

global password

global name_entry

global emailid_entry

global mobileno_entry

global username_entry

global password_entry

name = StringVar()

emailid = StringVar()

mobileno = StringVar()

username = StringVar()

password = StringVar()

Label(newsupervisor_screen, text="Please enter details below",
bg="blue").pack()

Label(newsupervisor_screen, text="").pack()

name_label = Label(newsupervisor_screen, text="name * ")

name_label.pack()

name_entry = Entry(newsupervisor_screen, textvariable=name)

name_entry.pack()

emailid_label = Label(newsupervisor_screen, text="emailid * ")

emailid_label.pack()

```
emailid_entry = Entry(newsupervisor_screen, textvariable=emailid)
emailid_entry.pack()

mobilenole_label = Label(newsupervisor_screen, text="mobilenole *")
mobilenole_label.pack()

mobilenole_entry = Entry(newsupervisor_screen,
textvariable=mobilenole)
mobilenole_entry.pack()

username_label = Label(newsupervisor_screen, text="Username *")
username_label.pack()

username_entry = Entry(newsupervisor_screen,
textvariable=username)
username_entry.pack()

password_label = Label(newsupervisor_screen, text="Password *")
password_label.pack()

password_entry = Entry(newsupervisor_screen,
textvariable=password, show='*')
password_entry.pack()

Label(newsupervisor_screen, text="").pack()

Button(newsupervisor_screen, text="Register", width=10,
height=1, bg="blue", command = newsupervisor_user).pack()
```

```
# Designing window for login
```

```
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()
```

Implementing event on register button

```
def register_user():

    # name_info = username.get()

    #register_user_screen.geometry("650x450")

    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()
```

```
# new supervisor2
```

```
def newsupervisor_user():
```

```
    # name_info = username.get()
```

```
    #register_user_screen.geometry("650x450")
```

```
    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(newsupervisor_screen, text="Registration Success",  
fg="green", font=("calibri", 11)).pack()
```

```
# Implementing event on login button
```

```
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()

Designing popup for login success

def login_sucess():

 global login_success_screen

 login_success_screen = Toplevel(login_screen)

 login_success_screen.title("Success")

 login_success_screen.geometry("250x150")

 Label(login_success_screen, text="Login Success").pack()

 Button(login_success_screen, text="OK",
command=delete_login_success).pack()

Designing popup for login invalid password

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()
```

```
# Designing popup for user not found
```

```
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()
```

```
# Deleting popups
```

```
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()
```

```
# Designing Main(first) window
```

```
def main_account_screen():
```

```
    global main_screen
```

```
    main_screen = Tk()
```

```
    main_screen.geometry("650x400")
```

```
    main_screen.title("Account Login")
```

```
    Label(text="Select Your Choice", bg="blue", 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()
```

```
    Label(text="").pack()
```

```
    Button(text="New supervisor", height="2", width="30",  
command=newsupervisor).pack()
```

```
main_screen.mainloop()
```

```
main_account_screen(
```