Designing Main Screen

```
def main_account_screen():

   main_screen = Tk()   # create a GUI window
   main_screen.geometry("300x250") # set the configuration of GUI window
   main_screen.title("Account Signin") # set the title of GUI window

# create a Form label
Label(text="Choose Signin Or Register", bg="blue", width="300", height="2", font=("Calibri",
13)).pack()
Label(text="").pack()

# create Signin Button
Button(text="Signin", height="2", width="30").pack()
Label(text="").pack()

# create a register button
 Button(text="Register", height="2", width="30").pack()

main_screen.mainloop() # start the GUI

main_account_screen() # call the main_account_screen() function
```

Designing New Screen For Registration

```
def register():

# The Toplevel widget work pretty much like Frame,
# but it is displayed in a separate, top-level window.
#Such windows usually have title bars, borders, and other “window decorations”.
# And in argument we have to pass global screen variable

   register_screen = Toplevel(main_screen)
   register_screen.title("Register")
   register_screen.geometry("300x250")

# Set text variables
   username = StringVar()
   password = StringVar()

# Set label for user's instruction
   Label(register_screen, text="Please enter details below", bg="blue").pack()
   Label(register_screen, text="").pack()
```

```
# Set username label
   username_lable = Label(register_screen, text="Username * ")
   username_lable.pack()

# Set username entry
# The Entry widget is a standard Tkinter widget used to enter or display a single line of text.

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

# Set password label
   password_lable = Label(register_screen, text="Password * ")
   password_lable.pack()

# Set password entry
   password_entry = Entry(register_screen, textvariable=password, show='*')
   password_entry.pack()

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

# Set register button
   Button(register_screen, text="Register", width=10, height=1, bg="blue").pack()
```

```
global main_screen

# add command=register in button widget

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

Assigning Functions To Register Button

```
def register_user():

# get username and password
   username_info = username.get()
   password_info = password.get()

# Open file in write mode
```

```
    file = open(username_info, "w")

# write username and password information into file
    file.write(username_info + "\n")
    file.write(password_info)
    file.close()

    username_entry.delete(0, END)
    password_entry.delete(0, END)

# set a label for showing success information on screen

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




# set global variables

global username
global password
global username_entry
global password_entry


# add command = register

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

Designing New Screen For Signin

```
# define Signin function
def Signin():

    Signin_screen = Toplevel(main_screen)
    Signin_screen.title("Signin")
    Signin_screen.geometry("300x250")
```

```
    Label(Signin_screen, text="Please enter details below to Signin").pack()
    Label(Signin_screen, text="").pack()

    global username_verify
    global password_verify

    username_verify = StringVar()
    password_verify = StringVar()



    Label(Signin_screen, text="Username * ").pack()
    username_Signin_entry = Entry(Signin_screen, textvariable=username_verify)
    username_Signin_entry.pack()
    Label(Signin_screen, text="").pack()
    Label(Signin_screen, text="Password * ").pack()
    password__Signin_entry = Entry(Signin_screen, textvariable=password_verify, show= '*')
    password__Signin_entry.pack()
    Label(Signin_screen, text="").pack()
    Button(Signin_screen, text="Signin", width=10, height=1,
command=Signin_verification).pack()()



# add command = Signin

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



def Signin_verification():
    print("working...")
```

Signin Verification Process

```
def Signin_verify():
#get username and password

    username1 = username_verify.get()
    password1 = password_verify.get()
# this will delete the entry after Signin button is pressed
    username_Signin_entry.delete(0, END)
```

```
    password_Signin_entry.delete(0, END)

#The method listdir() returns a list containing the names of the entries in the directory given
by path.
    list_of_files = os.listdir()

#defining verification's conditions
    if username1 in list_of_files:
        file1 = open(username1, "r")   # open the file in read mode

#read the file,
#as splitlines() actually splits on the newline character,
#the newline character is not left hanging at the end of each line. if password1 in verify:

        verify = file1.read().splitlines()
            Signin_sucess()

        else:
            password_not_recognised()

    else:
        user_not_found()
```

Designing Signin Success Popup

```
def Signin_sucess():

    global Signin_success_screen   # make Signin_success_screen global
    Signin_success_screen = Toplevel(Signin_screen)
    Signin_success_screen.title("Success")
    Signin_success_screen.geometry("150x100")
    Label(Signin_success_screen, text="Signin Success").pack()

# create OK button
    Button(Signin_success_screen, text="OK", command=delete_Signin_success).pack()
```

```
def delete_Signin_success():
```

```
    Signin_success_screen.destroy()



def password_not_recognised():
    global password_not_recog_screen
    password_not_recog_screen = Toplevel(Signin_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 delete_password_not_recognised():
    password_not_recog_screen.destroy()



def user_not_found():
    global user_not_found_screen
    user_not_found_screen = Toplevel(Signin_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_user_not_found_screen():
    user_not_found_screen.destroy()
```

Complete Code For Python GUI Signin

```
#import modules

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 username
   global password
   global username_entry
   global password_entry
   username = StringVar()
   password = StringVar()

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


# Designing window for Signin

def Signin():
   global Signin_screen
   Signin_screen = Toplevel(main_screen)
   Signin_screen.title("Signin")
  Signin_screen.geometry("300x250")
   Label(Signin_screen, text="Please enter details below to Signin").pack()
   Label(Signin_screen, text="").pack()

   global username_verify
   global password_verify

   username_verify = StringVar()
   password_verify = StringVar()

   global username_Signin_entry
```

```
    global password_Signin_entry

    Label(Signin_screen, text="Username * ").pack()
    username_Signin_entry = Entry(Signin_screen, textvariable=username_verify)
    username_Signin_entry.pack()
    Label(Signin_screen, text="").pack()
    Label(Signin_screen, text="Password * ").pack()
    password_Signin_entry = Entry(Signin_screen, textvariable=password_verify, show= '*')
    password_Signin_entry.pack()
    Label(Signin_screen, text="").pack()
    Button(Signin_screen, text="Signin", width=10, height=1, command = Signin_verify).pack()

# Implementing event on register button

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()

# Implementing event on Signin button

def Signin_verify():
    username1 = username_verify.get()
    password1 = password_verify.get()
    username_Signin_entry.delete(0, END)
    password_Signin_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:
            Signin_sucess()

        else:
            password_not_recognised()
```

```
    else:
        user_not_found()

# Designing popup for Signin success

def Signin_sucess():
    global Signin_success_screen
    Signin_success_screen = Toplevel(Signin_screen)
    Signin_success_screen.title("Success")
    Signin_success_screen.geometry("150x100")
    Label(Signin_success_screen, text="Signin Success").pack()
    Button(Signin_success_screen, text="OK", command=delete_Signin_success).pack()

# Designing popup for Signin invalid password

def password_not_recognised():
    global password_not_recog_screen
    password_not_recog_screen = Toplevel(Signin_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(Signin_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_Signin_success():
    Signin_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("300x250")
   main_screen.title("Account Signin")
   Label(text="Select Your Choice", bg="blue", width="300", height="2", font=("Calibri",
13)).pack()
   Label(text="").pack()
   Button(text="Signin", height="2", width="30", command = Signin).pack()
   Label(text="").pack()
   Button(text="Register", height="2", width="30", command=register).pack()

   main_screen.mainloop()


main_account_screen()
```