

```

from tkinter import *
import sqlite3

root = Tk()
root.title("Python: Simple Login Application")
Width = 400
Height = 280
Screen_width = root.winfo_screenwidth()
Screen_height = root.winfo_screenheight()
X = (screen_width/2) - (width/2)
Y = (screen_height/2) - (height/2)
Root.geometry("%dx%d+%d+%d" % (width, height, x, y))
Root.resizable(0, 0)

#=====VARIABLES=====
USERNAME = StringVar()
PASSWORD = StringVar()

#=====FRAMES=====
Top = Frame(root, bd=2, relief=RIDGE)
Top.pack(side=TOP, fill=X)
Form = Frame(root, height=200)
Form.pack(side=TOP, pady=20)

#=====LABELS=====
Lbl_title = Label(Top, text = "Python: Simple Login Application", font=('arial', 15))
Lbl_title.pack(fill=X)
Lbl_username = Label(Form, text = "Username:", font=('arial', 14), bd=15)
Lbl_username.grid(row=0, sticky="e")

```

```
Lbl_password = Label(Form, text = "Password:", font=('arial', 14), bd=15)
```

```
Lbl_password.grid(row=1, sticky="e")
```

```
Lbl_text = Label(Form)
```

```
Lbl_text.grid(row=2, colspan=2)
```

```
#=====ENTRY WIDGETS=====
```

```
Username = Entry(Form, textvariable=USERNAME, font=(14))
```

```
Username.grid(row=0, column=1)
```

```
Password = Entry(Form, textvariable=PASSWORD, show="*", font=(14))
```

```
Password.grid(row=1, column=1)
```

```
#=====METHODS=====
```

```
Def Database():
```

```
    Global conn, cursor
```

```
    Conn = sqlite3.connect("pythontut.db")
```

```
    Cursor = conn.cursor()
```

```
    Cursor.execute("CREATE TABLE IF NOT EXISTS `member` (mem_id INTEGER NOT NULL PRIMARY KEY  
AUTOINCREMENT, username TEXT, password TEXT)")
```

```
    Cursor.execute("SELECT * FROM `member` WHERE `username` = 'admin' AND `password` = 'admin'")
```

```
    If cursor.fetchone() is None:
```

```
        Cursor.execute("INSERT INTO `member` (username, password) VALUES('admin', 'admin')")
```

```
    Conn.commit()
```

```
Def Login(event=None):
```

```
    Database()
```

```
    If USERNAME.get() == "" or PASSWORD.get() == "":
```

```
        Lbl_text.config(text="Please complete the required field!", fg="red")
```

Else:

```
Cursor.execute("SELECT * FROM `member` WHERE `username` = ? AND `password` = ?",  
(USERNAME.get(), PASSWORD.get()))
```

If cursor.fetchone() is not None:

```
HomeWindow()
```

```
USERNAME.set("")
```

```
PASSWORD.set("")
```

```
Lbl_text.config(text="")
```

Else:

```
Lbl_text.config(text="Invalid username or password", fg="red")
```

```
USERNAME.set("")
```

```
PASSWORD.set("")
```

```
Cursor.close()
```

```
Conn.close()
```

#=====BUTTON WIDGETS=====

```
Btn_login = Button(Form, text="Login", width=45, command=Login)
```

```
Btn_login.grid(pady=25, row=3, columnspan=2)
```

```
Btn_login.bind('<Return>', Login)
```

Def HomeWindow():

```
Global Home
```

```
Root.withdraw()
```

```
Home = Toplevel()
```

```
Home.title("Python: Simple Login Application")
```

```
Width = 600
```

```
Height = 500
```

```
Screen_width = root.winfo_screenwidth()
Screen_height = root.winfo_screenheight()
X = (screen_width/2) - (width/2)
Y = (screen_height/2) - (height/2)
Root.resizable(0, 0)
Home.geometry("%dx%d+%d+%d" % (width, height, x, y))
Lbl_home = Label(Home, text="Successfully Login!", font=('times new roman', 20)).pack()
Btn_back = Button(Home, text='Back', command=Back).pack(pady=20, fill=X)

Def Back():
    Home.destroy()
    Root.deiconify()
```