

Database Authentication Management System

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Introduction

Database Authentication Management System is a user login system where a user can interact with a graphical interface. The front end is designed with python and backend is handled by mysql server.

Pyhton Code [Front-end]

#Including packages

```
import pymysql
from tkinter import *
```

#Signup function def

```
def getdata():
    us = u.get()
    ps = p.get()
    db = pymysql.connect('localhost','root','root','login')
    cr = db.cursor()
    q = """INSERT INTO user(Username>Password) VALUES(%s,%s);"""
    val = (us,ps)
    rwCount1 = cr.rowcount
    cr.execute(q,val)
    rwCount2 = cr.rowcount
    db.commit()
    cr.execute("SELECT * FROM user")
    for i in cr:
        print(i)
    if(rwCount1<rwCount2):
        messagebox.showinfo("Signup", "Signup Successful")
    else:
        messagebox.showinfo("Signup", "Signup Failed")
    cr.close()
    db.close()
```

#Login function def

```
def val():
    db = pymysql.connect('localhost','root','root','login')
    cr = db.cursor()
    us = u.get()
    ps = p.get()
```

```

uq = """"SELECT Username,Password FROM user WHERE Username = %s""""
s = (us)
cr.execute(uq,s)
flg = 0
for i in cr:
    if(i[0]==us and i[1]==ps):
        flg = 1
if(us==" or ps==" ):
    messagebox.showinfo("Login","Please enter details")
elif(flg==0):
    messagebox.showinfo("Login", "Login failed")
else:
    messagebox.showinfo("Login", "Login successful")

```

#tkinter gui starts

```

window = Tk()
window.title("SignUp")
window.geometry('350x180')

```

#row 0 [blank]

```

Label(window,text=" ").grid(row=0)

```

#row 1 [username row]

```

Label(window,text=" ").grid(row=1,column=0)
Label(window,text='Username : ').grid(column=1,row=1)
u = Entry(window,width=25)
u.grid(column=2,row=1)

```

#row 2 [blank]

```

Label(window,text=" ").grid(row=2)

```

#row 3 [password row]

```

Label(window,text=" ").grid(row=3,column=0)
Label(window,text='Password : ').grid(column=1,row=3)
p = Entry(window,width=25,show='*')
p.grid(column=2,row=3)

```

#row 4 [blank]

```

Label(window,text=" ").grid(row=4)

```

#row 5 [buttons]

```

Label(window,text=" ").grid(row=5,column=0)
SignUpbt = Button(window,text='SignUp',width=20,command=getdata)
SignUpbt.grid(column=1,row=5)
Loginbt = Button(window,text='Login',width=20,command=val)
Loginbt.grid(column=2,row=5)

```

[#mainloop function](#)
window.mainloop()

[Mysql server \[back-end\]](#)

```
C:\Windows\System32\cmd.exe - mysql - --console
Microsoft Windows [Version 10.0.15063]
(c) 2017 Microsoft Corporation. All rights reserved.

E:\Python\mysql\mysql-8.0.13-win64\bin>mysqld --initialize

E:\Python\mysql\mysql-8.0.13-win64\bin>mysqld --console
2019-01-19T01:26:02.285724Z 0 [System] [MY-010116] [Server] E:\Python\mysql\mysql-8.0.13-win64\bin\mysqld.exe (mysqld 8.0
.13) starting as process 16204
2019-01-19T01:26:06.548579Z 0 [System] [MY-010229] [Server] Starting crash recovery...
2019-01-19T01:26:06.567246Z 0 [System] [MY-010232] [Server] Crash recovery finished.
2019-01-19T01:26:07.954191Z 0 [Warning] [MY-010068] [Server] CA certificate ca.pem is self signed.
2019-01-19T01:26:08.052454Z 0 [System] [MY-010931] [Server] E:\Python\mysql\mysql-8.0.13-win64\bin\mysqld.exe: ready for
connections. Version: '8.0.13' socket: '' port: 3306 MySQL Community Server - GPL.
2019-01-19T01:26:08.223255Z 0 [System] [MY-011323] [Server] X Plugin ready for connections. Bind-address: '::' port: 33060
```

Mysql Database 1

```
C:\Windows\System32\cmd.exe - mysql -u root -p
Microsoft Windows [Version 10.0.15063]
(c) 2017 Microsoft Corporation. All rights reserved.

E:\Python\mysql\mysql-8.0.13-win64\bin>mysql -u root -p
Enter password: ****
```

MySQL Database 2 [mysql authentication]

```
C:\Windows\System32\cmd.exe - mysql -u root -p

E:\Python\mysql\mysql-8.0.13-win64\bin>mysql -u root -p
Enter password: ****
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 9
Server version: 8.0.13 MySQL Community Server - GPL

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owners.

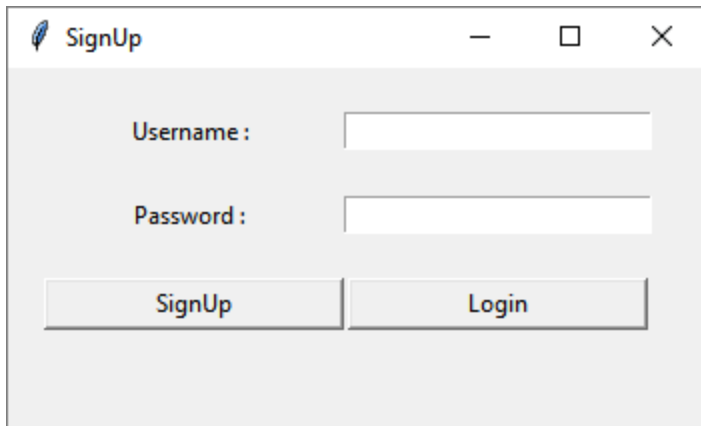
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> use login;
Database changed
mysql> desc user;
+-----+-----+-----+-----+-----+
| Field      | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+
| Username   | varchar(20)   | YES  |     | NULL    |      |
| Password   | varchar(20)   | YES  |     | NULL    |      |
+-----+-----+-----+-----+-----+
2 rows in set (0.01 sec)

mysql> _
```

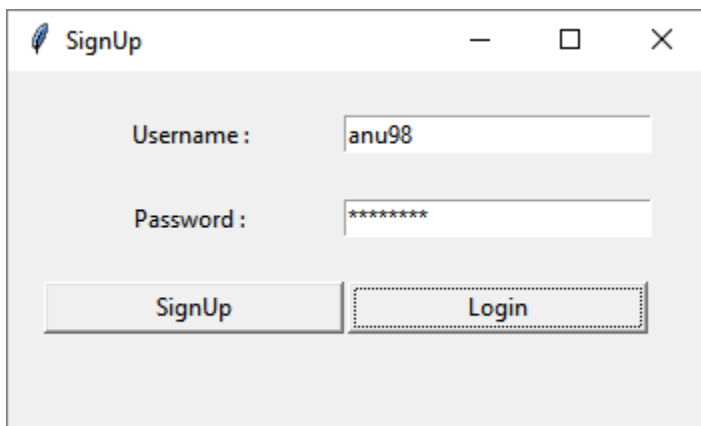
MySQL Database 3 [Data Structure]

Outputs



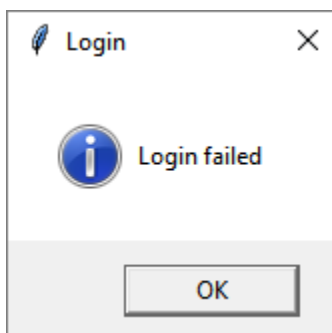
A screenshot of a window titled "SignUp" with a feather icon. It contains two text input fields: "Username :" and "Password :". Below the fields are two buttons: "SignUp" and "Login".

Graphical User Interface 1



A screenshot of the "SignUp" window. The "Username :" field contains the text "anu98". The "Password :" field contains seven asterisks "*****". The "Login" button is highlighted with a dashed border.

Graphical User Interface 2 [Login]



A screenshot of a small dialog box titled "Login" with a close button (X). It features an information icon (i) and the text "Login failed". At the bottom is an "OK" button.

Graphical User Interface 3 [Login Failed]

```
C:\Windows\System32\cmd.exe - mysql -u root -p

E:\Python\mysql\mysql-8.0.13-winx64\bin>mysql -u root -p
Enter password: ****
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 9
Server version: 8.0.13 MySQL Community Server - GPL

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owners.

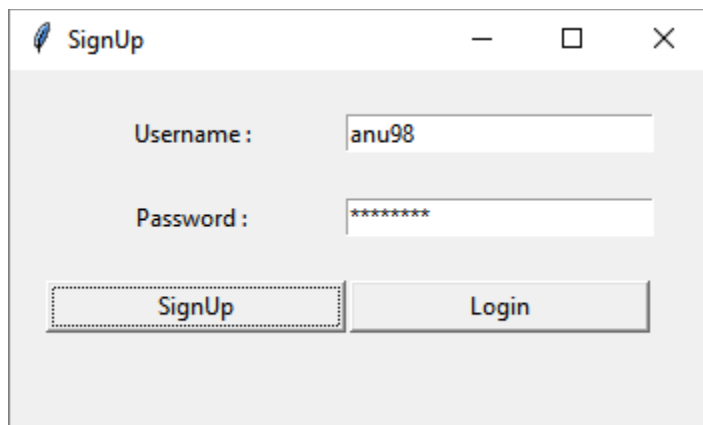
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> use login;
Database changed
mysql> desc user;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| Username | varchar(20) | YES | | NULL | |
| Password | varchar(20) | YES | | NULL | |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.01 sec)

mysql> select * from user;
Empty set (0.00 sec)

mysql>
```

Mysql database 1 [Login Failed because no data at database]



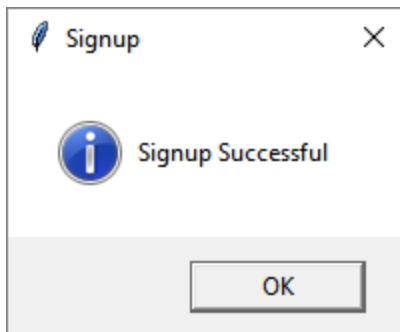
SignUp

Username : anu98

Password : *****

SignUp Login

Graphical User Interface 4 [Signup]



Graphical User Interface 5 [Signup Success]

```
C:\Windows\System32\cmd.exe - mysql -u root -p
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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

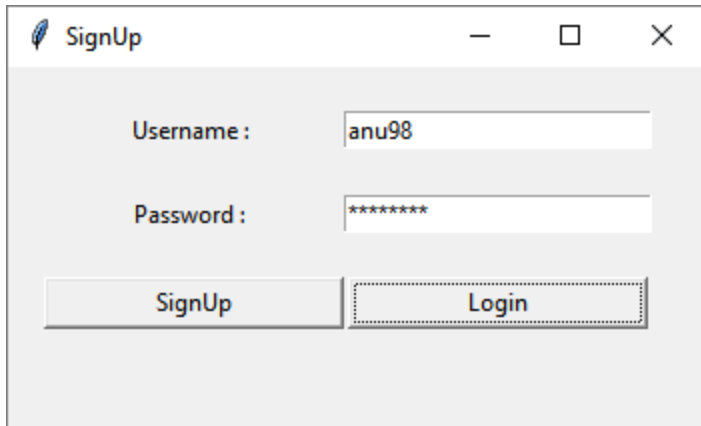
mysql> use login;
Database changed
mysql> desc user;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| Username | varchar(20) | YES | | NULL | |
| Password | varchar(20) | YES | | NULL | |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.01 sec)

mysql> select * from user;
Empty set (0.00 sec)

mysql> select * from user;
+-----+-----+
| Username | Password |
+-----+-----+
| anu98 | password |
+-----+-----+
1 row in set (0.00 sec)

mysql>
```

Mysql database 2 [userdata added]



A graphical user interface window titled "SignUp". It features a light gray background and standard window controls (minimize, maximize, close) in the title bar. The window contains two text input fields: "Username :" with the text "anu98" and "Password :" with masked text "*****". Below these fields are two buttons: "SignUp" and "Login". The "Login" button is highlighted with a dashed border.

Graphical User Interface 6 [Login again]



A graphical user interface window titled "Login". It has a light gray background and standard window controls. The window displays a blue information icon (a circle with a white 'i') next to the text "Login successful". At the bottom, there is an "OK" button.

Graphical User Interface 7 [Login success]