Add User and Display Current Username in Flask

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In this article, we'll talk about how to add a User and Display the Current Username on a Flask website. When we log in using our username and password, we will be taken to the profile page where we can see the welcome message and the username we created during registration. When additional users register using the login credentials we will use here, their names will also appear on the profile page screen. Python code will be connected to a MySQL database to preserve the user login and registration credentials. From there, we can observe how many users have registered and edited their information using phpmyadmin. For making our project we install flask first and create a virtual environment.

Display Username on Multiple Pages using Flask

Templates Files

In the templates folder we basically made three files one for register, another one for login, and at last one for the user so first we write code for register.html

register.html

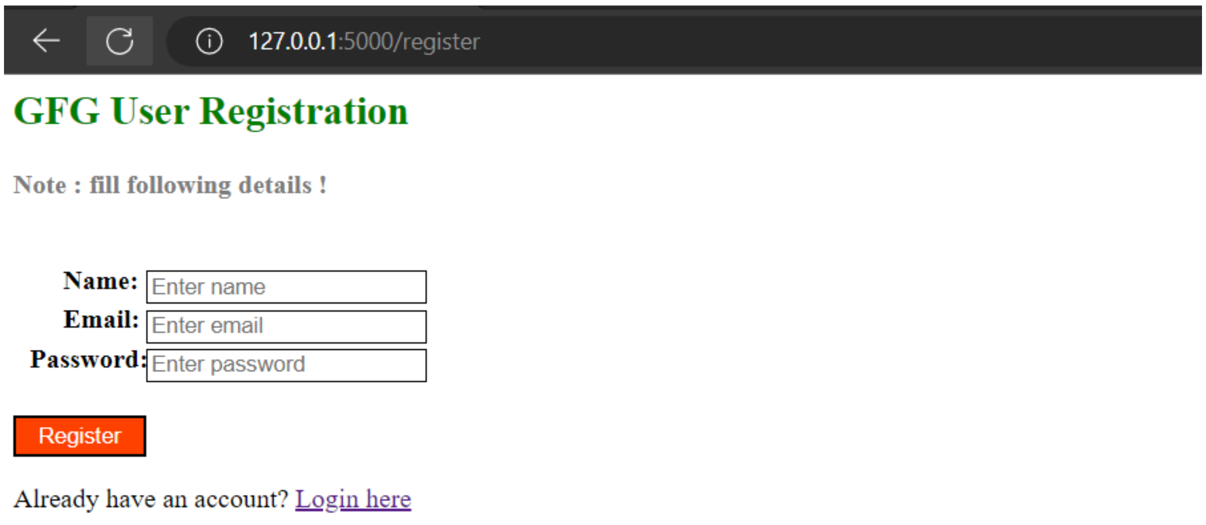
This HTML file contains a straightforward registration form that asks for three inputs: username, email address, and password. Once these fields have been completed, click the register button to see a flashing message stating that the form has been successfully submitted and that the registration information has been safely saved in the MySQL database. For flashing massage, we are using Jinja2 in an HTML file, so we can now log in using our credentials. If we registered using the same email address, the flash email id will also exist.

HTML

```
<html>
<head>
<meta charset="utf-8">
<meta name="viewport" content="width=device-width, initial-scale=1">
<title>User Registration Form</title>

</head>
<style>
    .hi{
        color: green;
    }
    .ok{
        display: block;
        margin-left: 80px;
        margin-top: -15px;
        border: 1px solid black;
    }
    .gfg{
        margin-left: 30px;
        font-weight: bold;
    }
    .gf{
        margin-left: 10px;
        font-weight: bold;
    }
    .btn{
        margin-top: 20px;
        width: 80px;
        height: 25px;
        background-color: orangered;
        color: white;
    }
    .y{
        color: gray;
    }
</style>
<body>
<div class="container">
    <h2 class="hi" > GFG User Registration </h2>
    <h4 class="y"  >Note : fill following details !</h4>
    <form action="{{ url_for('register') }}" method="post">
        {% if message is defined and message %}
            <div class="alert alert-warning">  <strong>  {{ message }} ???? </stro
        {% endif %}
        <br>
        <div class="form-group">
            <label class="gfg">Name:</label>
             <input class="ok" type="text" class="form-control" id="name" name="r
```

```
                </div>
                <div class="form-group">
                    <label class="gfg">Email:</label>
                     <input class="ok" type="email" class="form-control" id="email" name=
                </div>
                <div class="form-group">
                    <label class="gf">Password:</label>
                <input class="ok" type="password" class="form-control" id="password" name
                </div>
                <button class="btn" type="submit" class="btn btn-primary">Register</butto
                <p class="bottom">Already have an account?  <a class="bottom" href="{{url
            </form>
        </div>
        </body>
        </html>
```

Output:



127.0.0.1:5000/register

GFG User Registration

Note : fill following details !

Name: Enter name
Email: Enter email
Password: Enter password

Register

Already have an account? Login here

User Registration page

login.html

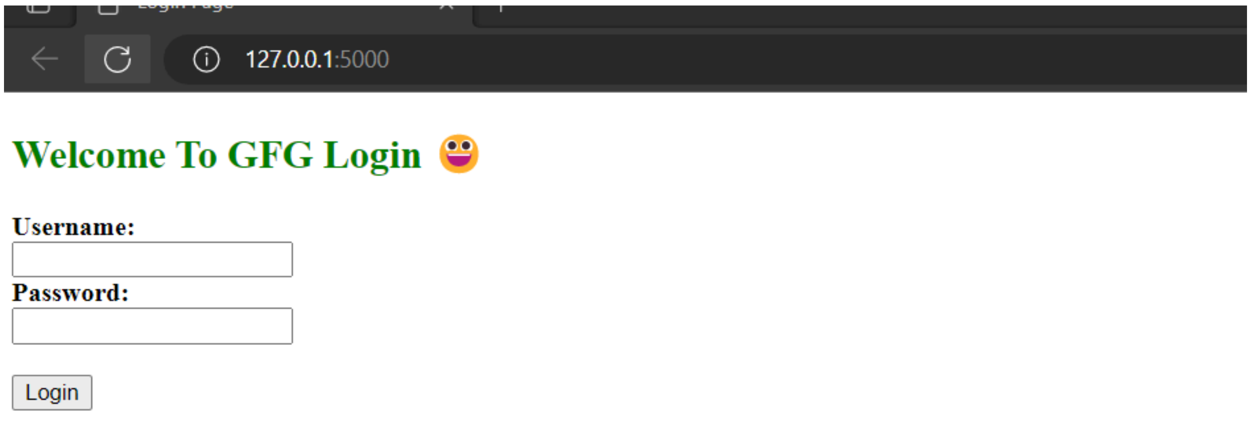
In login.html, we have created two straightforward inputs: a username and a password that we successfully registered. If we enter the correct email address and password, it will direct us to the user/login profile page, where we have used the URL for the function to write the file function that we want to display following successful registration.

HTML

```
<html>
<head>
<meta charset="utf-8">
<meta name="viewport" content="width=device-width, initial-scale=1">
<title>User Login Form</title>

</head>
<style>
    .gfg{
        display: block;
        margin-left: 70px;
        margin-top: -15px;

    }
    .ok{
        margin-left: 20px;
        font-weight: bold;

    }
    .btn{
        margin-top: 20px;
        width: 80px;
        height: 25px;
        background-color: gray;
        color: white;

    }
    .user{
        color: green;
    }

</style>
<body>
<div class="container">
    <h2 class="user"> GFG User Login</h2>
    <form action="{{ url_for('login') }}" method="post">
        {% if message is defined and message %}
            <div class="alert alert-warning"> <strong> {{ message }} ????</strong
        {% endif %}
        <br>
        <div class="form-group">
            <label class="ok">Email:</label>
         <input class="gfg" type="email" class="form-control" id="email" name="en
        </div>
        <div class="form-group">
            <label class="pop"> <strong> Password:</strong></label>
           <input class="gfg" type="password" class="form-control" id="password"
        </div>
```

```
            <button class="btn" type="submit" class="btn btn-primary">Login</button>
            <p class="bottom">Don't have an account?  <a class="bottom" href="{{url_f
        </form>
    </div>
    </body>
    </html>
```

Output:


127.0.0.1:5000

Welcome To GFG Login 😀

Username:

Password:

Login

User Login.html

user.html

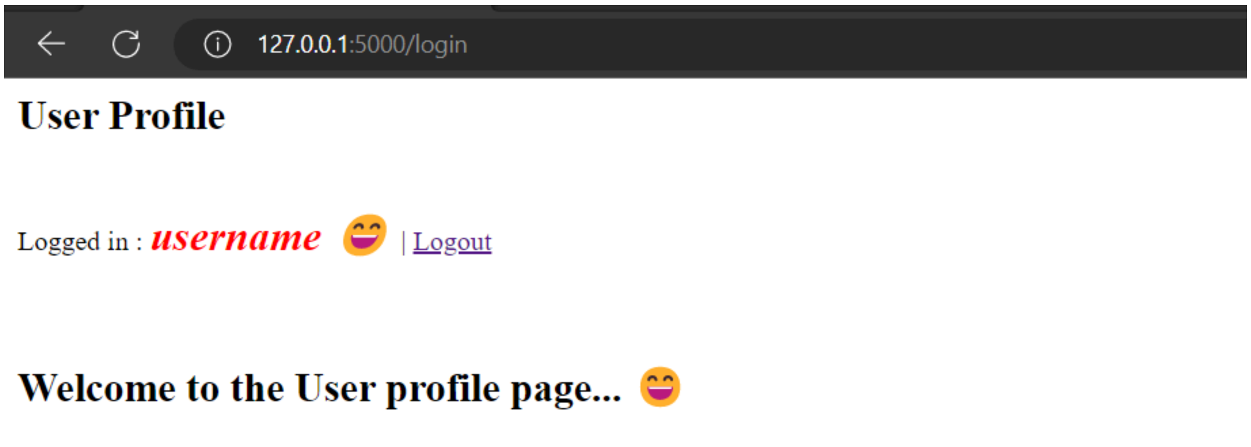
After a successful login, we put a few lines of code to greet the user in these files. We also add a second session. The name code we use during registration means that when we log in, our name will also appear on the screen. Additionally, a button for logging out will appear on the screen; by clicking this button, we can log out and must log in again.

HTML

```
<html>
<head>
<meta charset="utf-8">
<meta name="viewport" content="width=device-width, initial-scale=1">
<title>User Account</title>

</head>
<style>
.gfg{
    font-size: 25px;
    color: red;
```

```
        font-style: italic;
    }
</style>
<body>
<div class="container">
    <div class="row">
        <h2>User Profile</h2>
    </div>
    <br>
    <div class="row">
        Logged in : <strong class="gfg">  {{session.name}} ???? </strong>| <a hre
    </div>
    <br><br>
    <div class="row">

        <h2>Welcome to the User profile page... ????</h2>
    </div>
</div>
</body>
</html>
```

Output:


127.0.0.1:5000/login

User Profile

Logged in : *username* 😄 | Logout

Welcome to the User profile page... 😄

Username display on screen

app.py

Step 1: Import all library

First, the python code is written in a file called app.py. We import all the libraries required for running our application, connecting to MySQL, and performing admin login from the database into this file. Following the import of re(regular expression), which will read the data from our MySQL database, the Python code database, MySQL DB, is used to construct the data for our database. We initialize the flask function and generate a secret key for our flask after importing all modules. The database name, email address, and password are then added to the database.

Python3

```
# Import all important libraries
from flask import *
from flask_mysqldb import MySQL
import MySQLdb.cursors
import re

# initialize first flask
app = Flask(__name__)
app.secret_key = 'GeeksForGeeks'

# Set MySQL data
app.config['MYSQL_HOST'] = 'localhost'
app.config['MYSQL_USER'] = 'root'
app.config['MYSQL_PASSWORD'] = ''
app.config['MYSQL_DB'] = 'user-table'

mysql = MySQL(app)
```

Step 2: login and logout functions

Then, we develop a functional login() and develop a session for login and registration for a system that also obtains our data from MySQL. A successfully registered message will also appear on the login page when we successfully register on the register page. In this function, we pass the request to the login form by entering our name, password, and email when we click on enter. It will automatically save on our PHPMyAdmin by MySQL data.

Python3

```
# Make login function for login and also make
# session for login and registration system
# and also fetch the data from MySQL
```

```
@app.route('/')
@app.route('/login', methods=['GET', 'POST'])
def login():
    message = ''
    if request.method == 'POST' and 'email' in
            request.form and 'password' in request.form:
        email = request.form['email']
        password = request.form['password']
        cursor = mysql.connection.cursor
                    (MySQLdb.cursors.DictCursor)
        cursor.execute(
        'SELECT * FROM user WHERE email = % s AND password = % s',
                      (email, password, ))
        user = cursor.fetchone()
        if user:
            session['loggedin'] = True
            session['userid'] = user['userid']
            session['name'] = user['name']
            session['email'] = user['email']
            message = 'Logged in successfully !'
            return render_template('user.html',
                                   message=message)
        else:
            message = 'Please enter correct email / password !'
    return render_template('login.html', message=message)


# Make function for logout session
@app.route('/logout')
def logout():
    session.pop('loggedin', None)
    session.pop('userid', None)
    session.pop('email', None)
    return redirect(url_for('login'))
```

Step 3: User Registration

On the login screen, we can log in by providing our email address and password. There are also more flashing notifications, such as “User already exists” if we attempt to register again using the same email address. With the same email address, we are able to create two registered accounts. The username we specified on the registration page will also show up on the profile once we successfully log in. For this instance, we typed “GFG.”

“Welcome GFG” will appear once we have successfully logged in. That clarifies the entire code as well as its intended use.

Python3

```
# Make a register session for registration
# session and also connect to Mysql to code for access
# login and for completing our login
# session and making some flashing massage for error
@app.route('/register', methods=['GET', 'POST'])
def register():
    message = ''
    if request.method == 'POST' and 'name' in
        request.form and 'password' in request.form
            and 'email' in request.form:

        userName = request.form['name']
        password = request.form['password']
        email = request.form['email']
        cursor = mysql.connection.cursor(MySQLdb.cursors.DictCursor)
        cursor.execute('SELECT * FROM user WHERE email = % s',
                       (email, ))
        account = cursor.fetchone()
        if account:
            message = 'Account already exists !'
        elif not re.match(r'[^@]+@[^@]+\.[^@]+', email):
            message = 'Invalid email address !'
        elif not userName or not password or not email:
            message = 'Please fill out the form !'
        else:
            cursor.execute(
                'INSERT INTO user VALUES (NULL, % s, % s, % s)',
              (userName, email, password, ))
            mysql.connection.commit()
            message = 'You have successfully registered !'
    elif request.method == 'POST':
        message = 'Please fill out the form !'
    return render_template('register.html', message=message)
```

Complete Code

Python3

```
# Import all important libraries
from flask import *
from flask_mysqldb import MySQL
import MySQLdb.cursors
import re

# initialize first flask
app = Flask(__name__)
app.secret_key = 'GeeksForGeeks'

# Set MySQL data
app.config['MYSQL_HOST'] = 'localhost'
app.config['MYSQL_USER'] = 'root'
app.config['MYSQL_PASSWORD'] = ''
app.config['MYSQL_DB'] = 'user-table'

mysql = MySQL(app)


@app.route('/')
@app.route('/login', methods=['GET', 'POST'])
def login():
    message = ''
    if request.method == 'POST' and 'email' in
    request.form and 'password' in request.form:
        email = request.form['email']
        password = request.form['password']
        cursor = mysql.connection.cursor
                (MySQLdb.cursors.DictCursor)
        cursor.execute(
            'SELECT * FROM user WHERE email = % s AND password = % s',
                  (email, password, ))
        user = cursor.fetchone()
        if user:
            session['loggedin'] = True
            session['userid'] = user['userid']
            session['name'] = user['name']
            session['email'] = user['email']
            message = 'Logged in successfully !'
            return render_template('user.html',
                                   message=message)
        else:
            message = 'Please enter correct email / password !'
    return render_template('login.html',
                           message=message)


# Make function for logout session
```

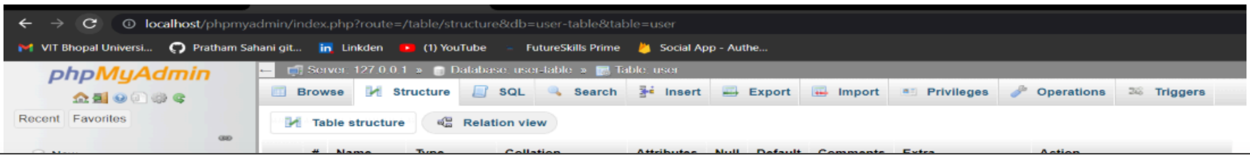
```
@app.route('/logout')
def logout():
    session.pop('loggedin', None)
    session.pop('userid', None)
    session.pop('email', None)
    return redirect(url_for('login'))


@app.route('/register', methods=['GET', 'POST'])
def register():
    message = ''
    if request.method == 'POST' and 'name' in request.form
            and 'password' in request.form and 'email' in request.form:
        userName = request.form['name']
        password = request.form['password']
        email = request.form['email']
        cursor = mysql.connection.cursor(MySQLdb.cursors.DictCursor)
        cursor.execute('SELECT * FROM user WHERE email = % s', (email, ))
        account = cursor.fetchone()
        if account:
            message = 'Account already exists !'
        elif not re.match(r'[^@]+@[^@]+\.[^@]+', email):
            message = 'Invalid email address !'
        elif not userName or not password or not email:
            message = 'Please fill out the form !'
        else:
            cursor.execute(
                'INSERT INTO user VALUES (NULL, % s, % s, % s)',
                      (userName, email, password, ))
            mysql.connection.commit()
            message = 'You have successfully registered !'
    elif request.method == 'POST':
        message = 'Please fill out the form !'
    return render_template('register.html', message=message)


# run code in debug mode
if __name__ == "__main__":
    app.run(debug=True)
```

After writing whole open your terminal and run the following command

```
python app.py
```

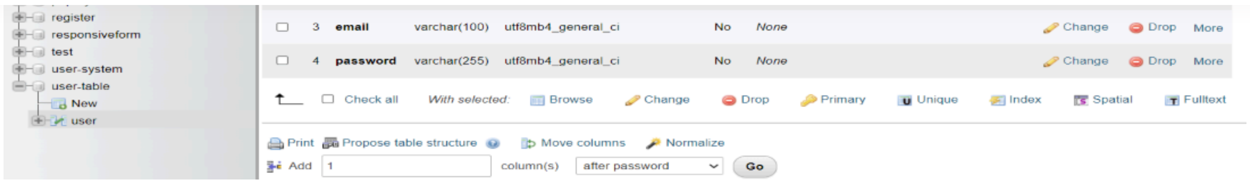
Database Output:

After registering multiple users these outputs will show in your database by watching the video you can understand how the username will display on the screen and how multiple users can register and login.



localhost/phpmyadmin/index.php?route=/table/structure&db=user-table&table=user

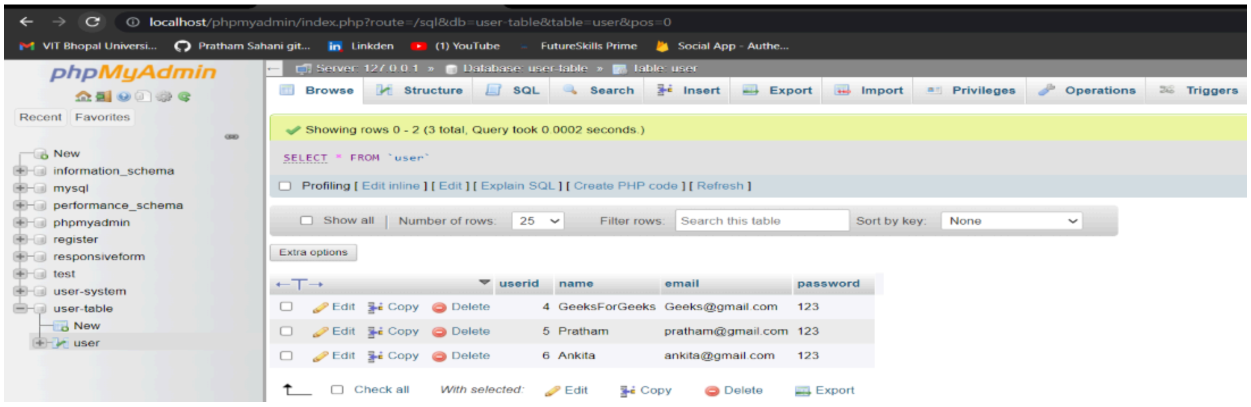
Server: 127.0.0.1 » Database: user-table » Table: user



	#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
☐	3	email	varchar(100)	utf8mb4_general_ci		No	None			Change Drop More
☐	4	password	varchar(255)	utf8mb4_general_ci		No	None			Change Drop More

Add 1 column(s) after password Go

When we register multiple users then these types of interfaces will show on our PHP admin panel.



localhost/phpmyadmin/index.php?route=/sql&db=user-table&table=user&pos=0

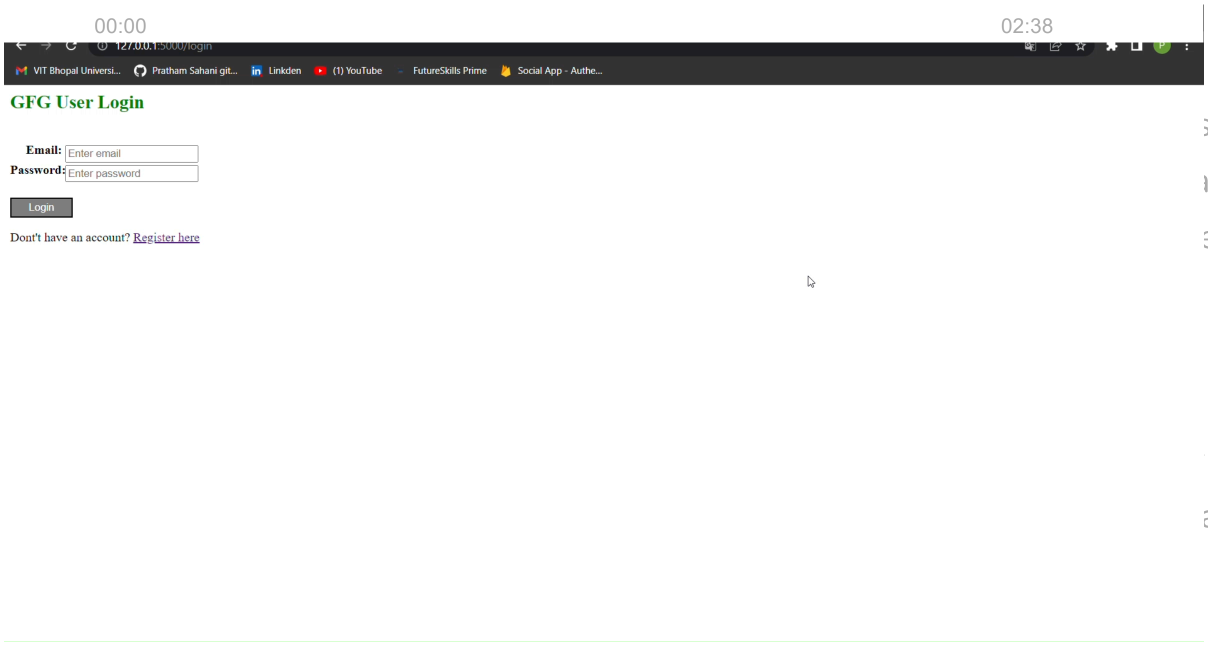
Server: 127.0.0.1 » Database: user-table » Table: user

Showing rows 0 - 2 (3 total, Query took 0.0002 seconds.)

```
SELECT * FROM `user`
```

		userid	name	email	password
☐	Edit Copy Delete	4	GeeksForGeeks	Geeks@gmail.com	123
☐	Edit Copy Delete	5	Pratham	pratham@gmail.com	123
☐	Edit Copy Delete	6	Ankita	ankita@gmail.com	123

Output of code:


00:00
02:38
127.0.0.1:5000/login
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GFG User Login
Email: Enter email
Password: Enter password
Login
Don't have an account? Register here

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