

## ASSIGNMENT 2

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### 1. Create User table with user with email, username, roll number, password

```
CREATE TABLE User(  
    Email varchar(100),  
    Username varchar(100)  
    Roll number int,  
    Password(100)  
);  
  
INSERT INTO User (Email, Username, Roll number, Password)  
VALUES  
    ('abc@gmail.com', 'xyz', '111', 'abcd'),  
    ('123@gmail.com', 'abc', '112', 'aabb');  
    ('xyz@gmail.com', 'ram', '113', 'ffihja');
```

### 2. Perform UPDATE, DELETE Queries with user table

```
CREATE TABLE User(  
    Email varchar(100),  
    Username varchar(100)  
    Roll number int,  
    Password(100)  
);  
  
INSERT INTO User (Email, Username, Roll number, Password)  
VALUES  
    ('abc@gmail.com', 'xyz', '111', 'abcd'),  
    ('123@gmail.com', 'abc', '112', 'aabb');  
    ('xyz@gmail.com', 'ram', '113', 'ffihja');
```

```
UPDATE User  
SET Username = 'shob'  
WHERE Roll number = 112  
  
DELETE FROM User  
WHERE Username=xyz ;
```

### 3. Connect python code to db2

```
import ibm_db
conn = ibm_db.connect("database","username","password")
```

```
import ibm_db
ibm_db.connect("DATABASE=name;HOSTNAME=host;PORT=60000;PROTOCOL=TCPIP;UID=user
name; PWD=password;", "", "")
```

### 4. Create a flask app with registration page, login page and welcome page. By default load the registration page once the user enters all the fields store the data in database and navigate to login page authenticate user username and password. If the user is valid show the welcome page.

#### app.py

```
from flask import Flask, render_template, request, redirect, url_for, session
from flask_mysql import MySQL
import MySQLdb.cursors
import re
```

```
app = Flask(_name_)
```

```
app.secret_key = 'your secret key'
```

```
app.config['MYSQL_HOST'] = 'localhost'
app.config['MYSQL_USER'] = 'root'
app.config['MYSQL_PASSWORD'] = 'your password'
app.config['MYSQL_DB'] = 'geeklogin'
```

```
mysql = MySQL(app)
```

```
@app.route('/')
@app.route('/login', methods = ['GET', 'POST'])
```

```
def login():
```

```
    msg = "
    if request.method == 'POST' and 'username' in request.form and 'password' in request.form:
        username = request.form['username']
        password = request.form['password']
        cursor = mysql.connection.cursor(MySQLdb.cursors.DictCursor)
        cursor.execute('SELECT * FROM accounts WHERE username = % s AND password =
% s', (username, password, ))
        account = cursor.fetchone()
        if account:
            session['loggedin'] = True
            session['id'] = account['id']
            session['username'] = account['username']
            msg = 'Logged in successfully !'
```

```

        return render_template('index.html', msg = msg)
    else:
        msg = 'Incorrect username / password !'
        return render_template('login.html', msg = msg)

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

@app.route('/register', methods =['GET', 'POST'])
def register():
    msg = ""
    if request.method == 'POST' and 'username' in request.form and 'password' in request.form and 'email' in request.form :
        username = request.form['username']
        password = request.form['password']
        email = request.form['email']
        cursor = mysql.connection.cursor(MySQLdb.cursors.DictCursor)
        cursor.execute('SELECT * FROM accounts WHERE username = % s', (username, ))
        account = cursor.fetchone()
        if account:
            msg = 'Account already exists !'
        elif not re.match(r'^@]+@^[^@]+\.[^@]+', email):
            msg = 'Invalid email address !'
        elif not re.match(r'[A-Za-z0-9]+', username):
            msg = 'Username must contain only characters and numbers !'
        elif not username or not password or not email:
            msg = 'Please fill out the form !'
        else:
            cursor.execute('INSERT INTO accounts VALUES (NULL, % s, % s, % s)',
(username, password, email, ))
            mysql.connection.commit()
            msg = 'You have successfully registered !'
    elif request.method == 'POST':
        msg = 'Please fill out the form !'
    return render_template('register.html', msg = msg)

```

### **login.html**

```

<html>
<head>
<meta charset="UTF-8">
<title> Login </title>
<link rel="stylesheet" href="{{ url_for('static', filename='style.css') }}">
</head>
<body></br></br></br></br></br>
<div align="center">
<div align="center" class="border">

```

```

<div class="header">
    <h1 class="word">Login</h1>
</div><br><br><br>
<h2 class="word">
    <form action="{{ url_for('login') }}" method="post">
        <div class="msg">{{ msg }}</div>
        <input id="username" name="username" type="text" placeholder="Enter Your Username"
class="textbox"/><br><br>
        <input id="password" name="password" type="password" placeholder="Enter Your
Password" class="textbox"/><br><br><br>
        <input type="submit" class="btn" value="Sign In"><br><br>
    </form>
</h2>
<p class="bottom">Don't have an account? <a class="bottom" href="{{ url_for('register') }}">
Sign Up here</a></p>
</div>
</div>
</body>
</html>

```

### **register.html**

```

<meta charset="UTF-8">
<title> Login </title>
<link rel="stylesheet" href="{{ url_for('static', filename='style.css') }}">
</head>
<body><br><br><br><br><br>
    <div align="center">
        <div align="center">
            <head>
n="center" class="border">
                <div class="header">
                    <h1 class="word">Login</h1>
                </div><br><br><br>
                <h2 class="word">
                    <form action="{{ url_for('login') }}" method="post">
                        <div class="msg">{{ msg }}</div>
                        <input id="username" name="username" type="text" placeholder="Enter Your Username"
class="textbox"/><br><br>
                        <input id="password" name="password" type="password" placeholder="Enter Your
Password" class="textbox"/><br><br><br>
                        <input type="submit" class="btn" value="Sign In"><br><br>
                    </form>
                </h2>
                <p class="bottom">Don't have an account? <a class="bottom" href="{{ url_for('register') }}"> Sign Up
here</a></p>
            </div>
        </div>
    </body>
</html>

```

## welcome.html

```
<html>
  <head>
    <meta charset="UTF-8">
    <title> Index </title>
    <link rel="stylesheet" href="{{ url_for('static', filename='style.css') }}">
  </head>
  <body></br></br></br></br></br>
    <div align="center">
      <div align="center" class="border">
        <div class="header">
          <h1 class="word">Index</h1>
        </div></br></br></br>
        <h1 class="bottom">
          Hi {{ session.username }}!!</br></br> Welcome to the index page...
        </h1></br></br></br>
        <a href="{{ url_for('logout') }}" class="btn">Logout</a>
      </div>
    </div>
  </body>
</html>
```

## style.css

```
.header{
  padding: 5px 120px;
  width: 150px;
  height: 70px;
  background-color: #236B8E;
}

.border{
  padding: 80px 50px;
  width: 400px;
  height: 450px;
  border: 1px solid #236B8E;
  border-radius: 0px;
  background-color: #9AC0CD;
}

.btn {
  padding: 10px 40px;
  background-color: #236B8E;
  color: #FFFFFF;
  font-style: oblique;
  font-weight: bold;
  border-radius: 10px;
}

.textbox{
```

```
padding: 10px 40px;
background-color: #236B8E;
text-color: #FFFFFF;
border-radius: 10px;
}
```

```
::placeholder {
color: #FFFFFF;
opacity: 1;
font-style: oblique;
font-weight: bold;
}
```

```
.word{
color: #FFFFFF;
font-style: oblique;
font-weight: bold;
}
```

```
.bottom{
color: #236B8E;
font-style: oblique;
font-weight: bold;
}
```