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 Userame = '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_mysqldb 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 !'
```

```python
                        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
<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">
```

```html
<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

```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 alig<html>
  <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
<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

```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{
```

```css
    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;
}
```