

Assignment-2

1) Table with user with email, username, roll number, password.

TABLE EMPLOYEE CREATED

```
CREATE TABLE Employee  
(  
  Rollno int,  
  username varchar(255),  
  password varchar(255),  
  Email varchar(255)  
);
```

Employee

Rollno	username	password	Email
empty			

2) UPDATE,DELETE Queries with user table

INSERT QUERY PERFORMED ON TABLE EMPLOYEE

```
INSERT INTO Employee
```

```
(Rollno,username, password, Email)
```

```
VALUES (4, "Jack","jac123","jac.gmail.com" ),
```

```
(5, "Jay","j123","j.gmail.com" )
```

Employee

Rollno	username	password	Email
4	Jack	jac123	jac.gmail.com
4	Jack	jac123	jac.gmail.com
5	Jay	j123	j.gmail.com

DELETE QUERY PERFORMED ON TABLE EMPLOYEE

DELETE FROM Employee WHERE Rollno=4;

Employee

Rollno	username	password	Email
5	Jay	j123	j.gmail.com

3)PYTHON CODE TO CONNECT IBM DB2

```
#-----#
# NAME:  ibm_db-connect_SERVER.py                                #
#
#                                     #
# PURPOSE: This program is designed to illustrate how to use the ibm_db.connect() API to  #
#          establish a connection to a Db2 server.                #
#                                     #
#          Additional APIs used:                                     #
#          ibm_db.close()                                           #
#                                     #
# USAGE:  Log in as a Db2 database instance user (for example, db2inst1) and issue the  #
#          following command from a terminal window:                #
#                                     #
#          ./ibm_db-connect_SERVER.py                               #
#-----#
# Load The Appropriate Python Modules
import sys    # Provides Information About Python Interpreter Constants, Functions, & Methods
```

```

import ibm_db    # Contains The APIs Needed To Work With Db2 Databases

from ipynb_exit import exit

# Define And Initialize The Appropriate Variables

hostName = "197.126.80.22"    # IP Address Of Remote Server

portNum = "50000"            # Port Number That Receives Db2 Connections On The Remote Server

userID = "db2inst2"          # The Instance User ID At The Remote Server

passWord = "ibmdb2"          # The Password For The Instance User ID At The Remote Server

connectionID = None

# Display A Status Message Indicating An Attempt To Establish A Connection To A Db2 Server

# Is About To Be Made

print("\nConnecting to the \' + hostName + \' server ... ", end="")

# Construct The String That Will Be Used To Establish A Db2 Server Connection

connString = "DRIVER={IBM DB2 ODBC DRIVER}"

connString += ";ATTACH=TRUE"    # Attach To A Server; Not A Database

connString += ";DATABASE="      # Ignored When Connecting To A Server

connString += ";HOSTNAME=" + hostName    # Required To Connect To A Server

connString += ";PORT=" + portNum    # Required To Connect To A Server

connString += ";PROTOCOL=TCPIP"    # Required To Connect To A Server

connString += ";UID=" + userID

connString += ";PWD=" + passWord

# Attempt To Establish A Connection To The Server Specified

try:

    connectionID = ibm_db.connect(connString, "", "")

except Exception:

    pass

# If A Db2 Server Connection Could Not Be Established, Display An Error Message And Exit

if connectionID is None:

    print("\nERROR: Unable to connect to the \' + hostName + \' server.")

    print("Connection string used: " + connString + "\n")

    exit(-1)

```

```

# Otherwise, Complete The Status Message
else:
    print("Done!\n")
# Add Additional Db2 Server-Related Processing Here...
# For Example, ibm_db.createdb(), ibm_db.createdbNX(), ibm_db.recreatedb(), ibm_db.dropdb()
# Attempt To Close The Db2 Server Connection That Was Just Opened
if not connectionID is None:
    print("Disconnecting from the \" + hostName + "\" server ... ", end="")
    try:
        returnCode = ibm_db.close(connectionID)
    except Exception:
        pass
# If The Db2 Server Connection Was Not Closed, Display An Error Message And Exit
if returnCode is False:
    print("\nERROR: Unable to disconnect from the " + hostName + " server.")
    exit(-1)
# Otherwise, Complete The Status Message
else:
    print("Done!\n")
# Return Control to the Operating System
exit()

```

4) FLASK APP WITH REGISTRATION PAGE LOGIN PAGE AND WELCOME PAGE

1. Creating Environment :

Step 1 - py -3 -m venv venv

Step 2 - venv\Scripts\activate

Step 3 - pip install Flask

2. MySQL Workbench :

Step-1 - Install MySQL workbench

Step-2 - Install 'mysqlbd' module in your venv.

```
pip install flask-mysqldb
```

Step 3 - Open My sql workbench and write the code

```
CREATE DATABASE IF NOT EXISTS 'DEFAULT CHARACTER SET utf8 COLLATE utf8 general_ci; USE 'geeklogin';
```

```
CREATE TABLE IF NOT EXISTS `accounts`(  
'id' int(11) NOT NULL AUTO_INCREMENT,  
username varchar(50) NOT NULL,  
password' varchar(255) NOT NULL,  
email varchar(100) NOT NULL,  
PRIMARY KEY ('id')
```

```
)ENGINE=InnoDB AUTO_INCREMENT=2 DEFAULT CHARSET=utf8;
```

3.Creating Project Step-1:

Create app.py

Store this code in 'app.py' file

```
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 !'

        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)

```

4.Create Templates:

step 1 - login.html

<!-- Store this code in 'login.html' file inside the 'templates' folder -->

<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>

```

step 2 - register.html

<!-- Store this code in 'register.html' file inside the 'templates' folder -->


```
<html>

    <head>

        <meta charset="UTF-8">

        <title> Register </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">Register</h1>

                </div></br></br></br></br>

                <h2 class="word">

                    <form action="{{ url_for('register') }}" 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>

                            <input id="email" name="email" type="text"
placeholder="Enter Your Email ID" class="textbox"/></br></br>

                            <input type="submit" class="btn" value="Sign Up"></br>

                        </form>

                    </h2>

                    <p class="bottom">Already have an account? <a class="bottom"
href="{{url_for('login')}}"> Sign In here</a></p>

                </div>

            </div>

        </body>

</html>
```

step 3 - index.html

<!-- Store this code in 'index.html' file inside the 'templates' folder-->

```
<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>
```

step 4 - create static folder

/* Store this code in 'style.css' file inside the 'static' folder*/

```
.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;
}
```

OUTPUTS

Login

Enter Your Username

Enter Your Password

Sign In

Don't have an account? [Sign Up here](#)

Register

Enter Your Username

Enter Your Password

Enter Your Email ID

Sign Up

Already have an account? [Sign In here](#)

Register

You have successfully registered!

Enter Your Username

Enter Your Password

Enter Your Email ID

Sign Up

Already have an account? [Sign In here](#)

Index

Hi user!!

Welcome to the index page...

Logout

Login

Incorrect username/password!

Enter Your Username

Enter Your Password

Sign In

Dont't have an account? [Sign Up here](#)