Assignment-2

PROJECT NAME :	Containment Zone Alerting App
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ROLL NO :	92172019104063

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

```
CREATE TABLE user (
    roll_number int,
username varchar(300),
email varchar(300),
    password varchar(300)
);
```

```
CREATE TABLE users (
    roll_number int,
    username varchar(300),
    email varchar(300),
    password varchar(300)
);
```

Output

SQL query successfully executed. However, the result set is empty.

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

INSERT Statement:

INSERT INTO user

(roll_number, username ,email, password) VALUES (1,

'Raja lingam', 'rajalingam@gmail.com','raju987'), (2,

'Ajay', 'ajay@gmail.com','ajay654'),

(3, 'Anton', 'anton@gmail.com','anton321'),

(4, 'Prasanth', 'prasanth@gmail.com','prasanth123');

```
INSERT INTO user
    ( roll_number, username ,email, password)  VALUES
     (1, 'Raja lingam', 'rajalingam@gmail.com','raju987'),
     (2, 'Ajay', 'ajay@gmail.com','ajay654'),
     (3, 'Anton', 'anton@gmail.com','anton321'),
     (4, 'Prasanth', 'prasanth@gmail.com','prasanth123');
```

Output | Available Tables

5	Delivered	1

User

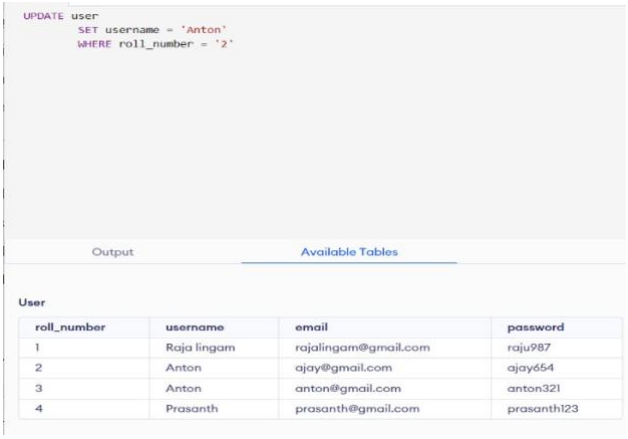
roll_number	username	email	password
1	Raja lingam	rajalingam@gmail.com	raju987
2	Ajay	ajay@gmail.com	ajay654
3	Anton	anton@gmail.com	anton321
4	Prasanth	prasanth@gmail.com	prasanth123

UPDATE Statement:

UPDATE users

SET username = 'Anton'

WHERE roll_number = '2'



```
UPDATE user
        SET username = 'Anton'
        WHERE roll_number = '2'
```

Output | Available Tables

User

roll_number	username	email	password
1	Raja lingam	rajalingam@gmail.com	raju987
2	Anton	ajay@gmail.com	ajay654
3	Anton	anton@gmail.com	anton321
4	Prasanth	prasanth@gmail.com	prasanth123

Insert Statement:

insert into users values(5,'aa','aaa@gmail.com','aasdfg2') ;

User

roll_number	username	email	password
1	Raja lingam	rajalingam@gmail.com	raju987
2	Anton	ajay@gmail.com	ajay654
3	Anton	anton@gmail.com	anton321
4	Prasanth	prasanth@gmail.com	prasanth123
5	aa	aaa@gmail.com	aasdfg2

DELETE Statement:

delete from users where roll_number='5'

User

roll_number	username	email	password
1	Raja lingam	rajalingam@gmail.com	raju987
2	Anton	ajay@gmail.com	ajay654
3	Anton	anton@gmail.com	anton321
4	Prasanth	prasanth@gmail.com	prasanth123

3. Connect python code to db2.

conn = ibm_db.connect("DATABASE=bludb;HOSTNAME=824dfd4d-99de-440d-9991-629c01b3832d.bs2io90l08kqb1od8lcg.databases.appdomain.cloud;PORT=30119;Security=SSL;SSLServerCertificate=DigiCertGlobalRootCA.crt;UID=lbs14903;PWD=1N4walQ5ywwiwP7c;","")

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.

login.html

```
<!DOCTYPE html>
<html>
<head>
	<meta charset="utf-8">
	<meta name="viewport" content="width=device-width, initial-scale=1.0">

	<link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/font-awesome/4.7.0/css/font-awesome.min.css">

	<link rel="stylesheet" type="text/css" href="{{ url_for('static',  filename='style.css') }}">

	<title>Login Form</title>

</head>
<body>
	<div class="container">
				<form action="{{ url_for('login') }}" method="POST" class="login-email">
					<p class="login-text" style="font-size: 2rem; font-weight: 800;">Login</p>
					<div class="input-group">
						<input id="username" type="text" placeholder="Enter username" name="username">
					</div>
					<div class="input-group">
						<input id="password" type="password" placeholder="Password" name="password">
```

```
                                    </div>
                                    <div class="input-group">
                                        <button name="submit"
class="btn">Login</button>
                                    </div>
                                    <p class="login-register-text">Don't have an account?
<a href="{{url_for('register')}}">Register Here</a>.</p>
                                </form>

        </div>
</body>
</html>
```

register.html:

```
<!DOCTYPE html>
<html>
<head>
        <meta charset="utf-8">
        <meta name="viewport" content="width=device-width, initial-scale=1.0">

        <link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/font-
awesome/4.7.0/css/font-awesome.min.css">

        <link rel="stylesheet" type="text/css" href="{{ url_for('static',  filename='style.css')
}}">

        <title>Register Form</title>

</head>
<body>
        <div class="container" >
```

```
            <form action="{{url_for('register')}}" method="POST" class="login-email">
        <p class="login-text" style="font-size: 2rem; font-weight: 800;">Register</p>
                    <div class="msg">{{ msg }}</div>
                    <div class="input-group">
                        <input type="text" placeholder="Username"
name="username">
                    </div>
                    <div class="input-group">
                         <input type="email" placeholder="Email" name="email">
                    </div>
                    <div class="input-group">
                        <input type="password" placeholder="Password"
name="password">
        </div>
                    <div class="input-group">
                        <button type="submit" class="btn">Register</button>
                    </div>
                    <p class="login-register-text">Have an account? <a
href="{{url_for('login')}}">Login Here</a>.</p>
                </form>
        </div>
</body>
</html>
```

index.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 Our
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;
}
```

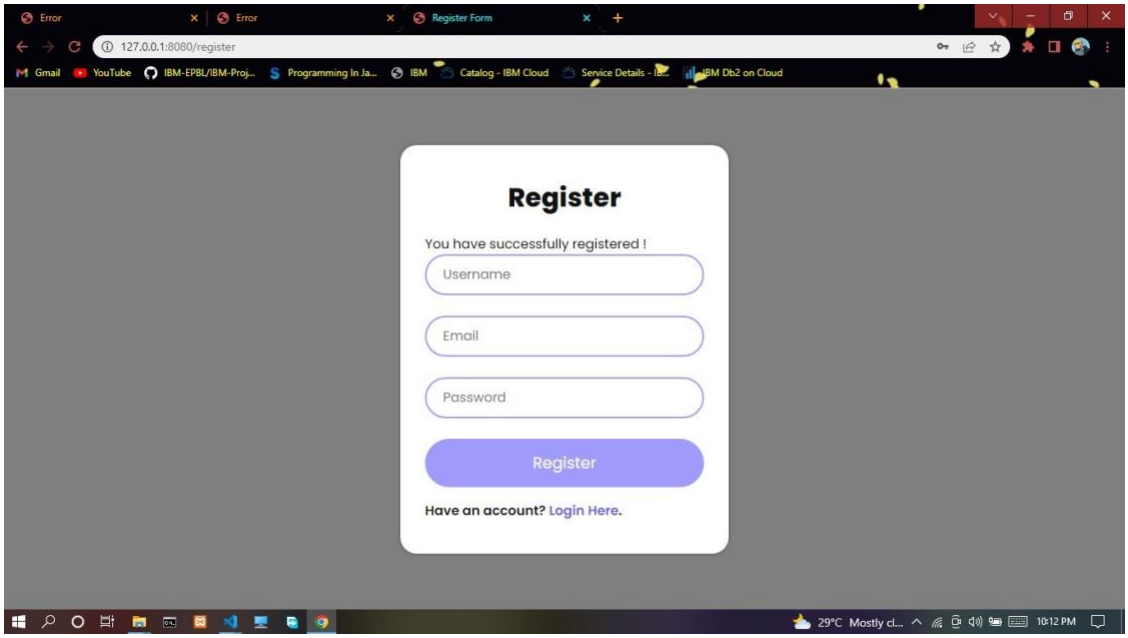
app.py:

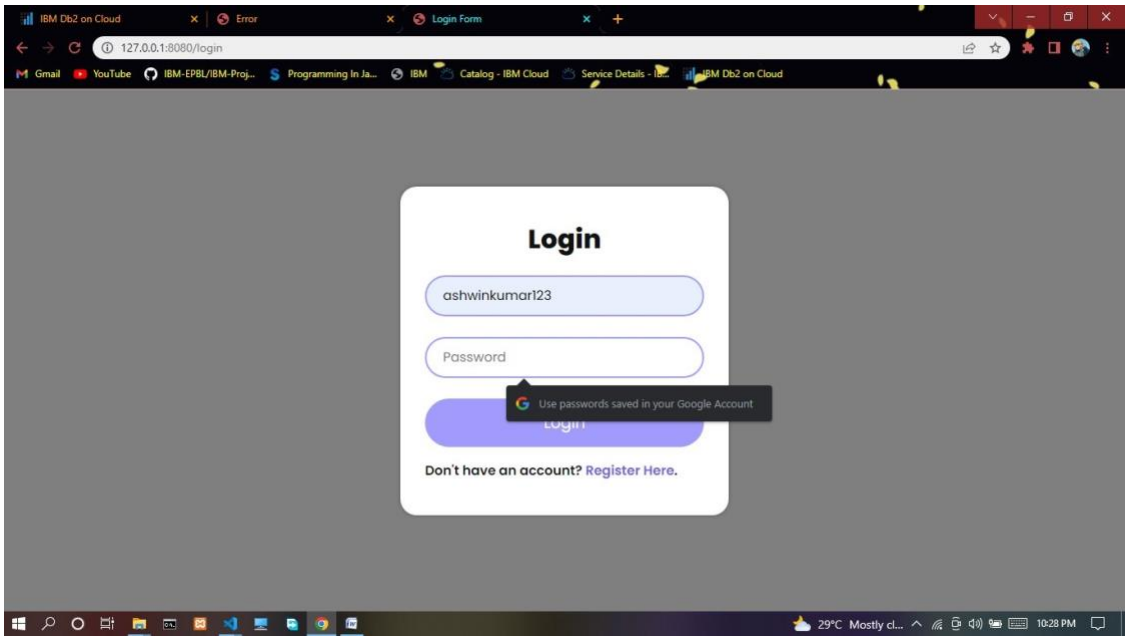
```
from flask import Flask, render_template, request, redirect, url_for, session
import ibm_db
import re

app = Flask(_name_)
app.secret_key = 'a'
conn = ibm_db.connect("DATABASE=bludb;HOSTNAME=824dfd4d-99de-440d-9991-629c01b3832d.bs2io90l08kqb1od8lcg.databases.appdomain.cloud;PORT=30119;Security=SSL;SSLServerCertificate=DigiCertGlobalRootCA.crt;UID=lbs14903;PWD=1N4walQ5ywwiwP7c;",",")

@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']
        stmt = ibm_db.prepare(conn,'SELECT * FROM users WHERE username = ? AND password = ?')
        ibm_db.bind_param(stmt,1,username)
        ibm_db.bind_param(stmt,2,password)
        ibm_db.execute(stmt)
```

```
        account = ibm_db.fetch_assoc(stmt)
        if account:
            session['loggedin'] = True
            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']
        stmt = ibm_db.prepare(conn,'SELECT * FROM users WHERE username = ?')
        ibm_db.bind_param(stmt,1,username)
        ibm_db.execute(stmt)
        account = ibm_db.fetch_assoc(stmt)
        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:
            prep_stmt = ibm_db.prepare(conn,"INSERT INTO users VALUES(?, ?, ?)")
            ibm_db.bind_param(prep_stmt, 1, username)
            ibm_db.bind_param(prep_stmt, 2, email)
            ibm_db.bind_param(prep_stmt, 3, password)
            ibm_db.execute(prep_stmt)
            msg = 'You have successfully registered !'
    elif request.method == 'POST':
        msg = 'Please fill out the form !'
    return render_template('register.html', msg = msg)

if __name__== '_main_':
    app.debug = True
    app.run(host='0.0.0.0',port=8080)
```

Output:


Error
Error
Register Form
127.0.0.1:8080/register
Gmail
YouTube
IBM-EPBL/IBM-Proj...
Programming In Ja...
IBM
Catalog - IBM Cloud
Service Details - IB...
IBM Db2 on Cloud
Register
You have successfully registered !
Username
Email
Password
Register
Have an account? Login Here.
29°C Mostly cl...
10:12 PM


IBM Db2 on Cloud
Error
Login Form
127.0.0.1:8080/login
Gmail
YouTube
IBM-EPBL/IBM-Proj...
Programming In Ja...
IBM
Catalog - IBM Cloud
Service Details - IB...
IBM Db2 on Cloud
Login
ashwinkumar123
Password
Use passwords saved in your Google Account
Login
Don't have an account? Register Here.
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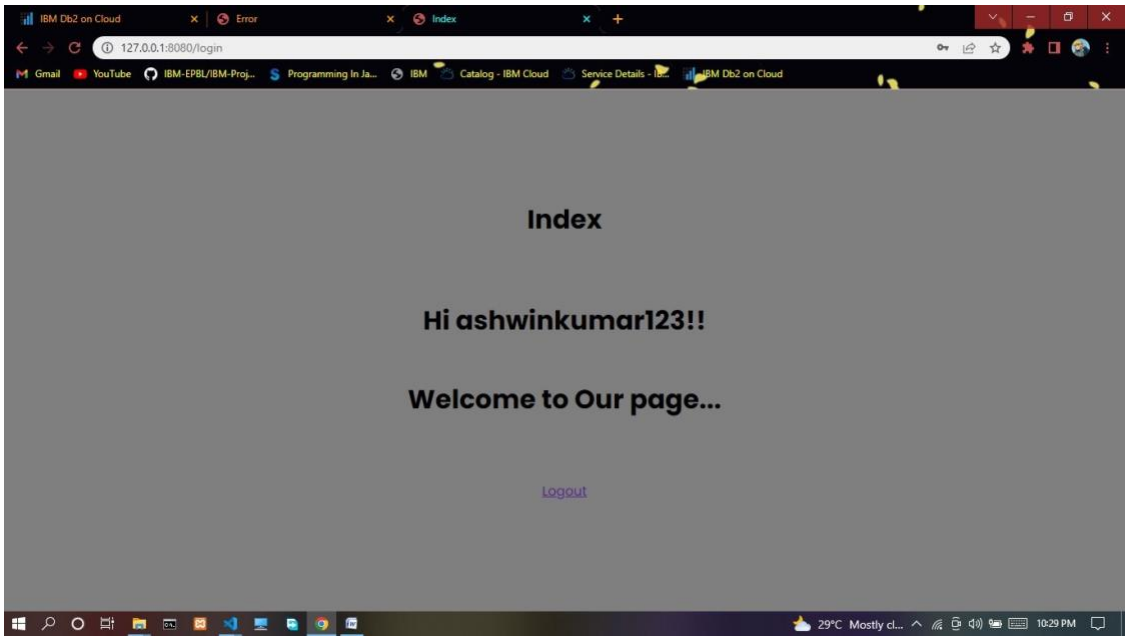
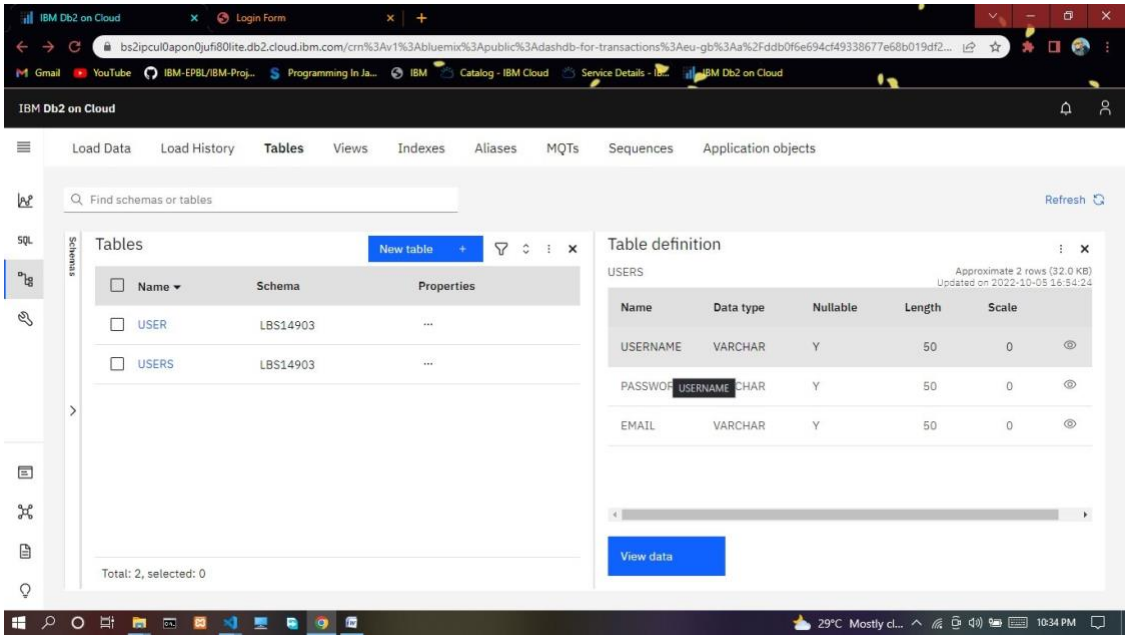
10:28 PM


IBM Db2 on Cloud
Error
Index
127.0.0.1:8080/login
Gmail
YouTube
IBM-EPBL/IBM-Proj...
Programming In Ja...
IBM
Catalog - IBM Cloud
Service Details - I...
IBM Db2 on Cloud
Index
Hi ashwinkumar123!!
Welcome to Our page...
Logout
29°C Mostly cl...
10:29 PM


IBM Db2 on Cloud
Login Form
bs2ipcul0apon0jufi80lite.db2.cloud.ibm.com/crn%3Av1%3Abluemix%3Apublic%3Adashdb-for-transactions%3Aeu-gb%3Aa%2Fddb0f6e694cf49338677e68b019df2...
IBM Db2 on Cloud
Load Data
Load History
Tables
Views
Indexes
Aliases
MQTs
Sequences
Application objects
Find schemas or tables
Refresh
Schemas
Tables
New table
Name
Schema
Properties
USER
LBS14903
USERS
LBS14903
Total: 2, selected: 0
Table definition
USERS
Approximate 2 rows (32.0 KB)
Updated on 2022-10-05 16:54:24
Name
Data type
Nullable
Length
Scale
USERNAME
VARCHAR
Y
50
0
PASSWORD
CHAR
Y
50
0
EMAIL
VARCHAR
Y
50
0
View data
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10:34 PM