

Assignment -2

Assignment Date	27 September 2022
Student Name	Mr. Jetson Cyrus J
Student Roll Number	9517201904060
Maximum Marks	2 Marks

Question-1:

1. Create User table with user with email, username, roll number, password.
2. Perform UPDATE, DELETE Queries with user table
3. Connect python code to db2.
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.

Solution:

Creating user table:

CREATE TABLE SAMPLE(name varchar(30), email varchar(30), password varchar(30))

The screenshot displays the IBM Db2 on Cloud web interface. At the top, a header bar shows 'IBM Db2 on Cloud' and user profile icons. Below this, a red error banner states: 'Error: Please check network connectivity then try again.' with a 'Show logs' link. The main workspace is divided into a left pane for the SQL editor and a right pane for the results. The SQL editor, titled '*Untitled - 1', contains the following script:

```
1 create table user(id int GENERATED BY DEFAULT AS IDENTITY NOT NULL, name varchar(30));
2
3
4 alter table user add age int;
5 select * from user;
6 drop table user;
7
8 create table users(username varchar(30), email varchar(30), password varchar(30));
9
10 insert into users values('123','jetson@gmail.com', '12345');
11 insert into users values('124','joshua@gmail.com', '12345');
12 select * from users;
13
14
15 create table sample(name varchar(30), mail varchar(30), phn varchar(30));
```

The right pane shows the execution result for the last statement: 'create table sample(name varchar(30), mail v...'. It indicates a successful execution with a run time of 0.073 s and 'Status: Success | Affected rows: 0'. At the bottom of the SQL editor, there are buttons for 'Run selected' and a checkbox for 'Remember my selection'.

Performing update, delete:

update sample set mail= 'jet@gmail.com' where name = 'jetson';

The screenshot shows the IBM Db2 on Cloud console interface. At the top, there's a navigation bar with tabs for 'You are signed in as 16194', 'IBM', 'Technical Training on Cloud App', 'Service Details - IBM Cloud', and 'IBM Db2 on Cloud'. Below this is a red error banner that says 'Error: Please check network connectivity then try again.' with a 'Show logs' link. The main area is divided into two panels. The left panel, titled '*Untitled - 1', contains a SQL script with the following lines: 1 create table user(id int GENERATED BY DEFAULT AS IDENTITY NOT NULL, name varchar(30)); 2 alter table user add age int; 3 select * from hai; 4 drop table user; 5 create table users(username varchar(30), email varchar(30), password varchar(30)); 6 insert into users values('123','jetson@gmail.com', '12345'); 7 insert into users values('124','joshua@gmail.com', '12345'); 8 select * from users; 9 create table sample(name varchar(30), mail varchar(30), phn varchar(30)); 10 insert into sample values('jetson', 'jetson@gmail.com', '7951717434'); 11 select * from sample; The right panel shows the execution results for the last statement, 'select * from sample'. It indicates a successful execution with a run time of 0.535 s. Below this, a table titled 'Result set 1' displays the data: NAME MAIL PHN, with one row: jetson jetson@gmail.com 7951717434. At the bottom of the left panel, there's a 'Run selected' button and a checkbox labeled 'Remember my selection'.

This screenshot shows the IBM Db2 on Cloud console after executing a script that includes an update statement. The top navigation bar is similar to the previous screenshot. The red error banner is still present. The SQL script in the left panel now includes an additional line: 12 update sample set mail= 'jet@gmail.com' where name = 'jetson'; The right panel shows the execution results for the last statement, 'update sample set mail= 'jet@gmail.com' where name = 'jetson';'. It indicates a successful execution with a run time of 0.004 s. Below this, the same table titled 'Result set 1' is displayed, showing the data for the 'sample' table: NAME MAIL PHN, with one row: jetson jet@gmail.com 7951717434. The 'Run selected' button and 'Remember my selection' checkbox are still visible at the bottom of the left panel.

delete from sample where name = 'jetson';

The image displays two screenshots of the IBM Db2 on Cloud console interface, showing the execution of SQL scripts and the resulting data.

Top Screenshot:

- The console shows a script titled "Untitled - 1" with the following SQL statements:

```
1 create table user(id int GENERATED BY DEFAULT AS IDENTITY NOT NULL, name varchar(30));
2
3 alter table user add age int;
4 select * from hai;
5 drop table user;
6
7 create table users(username varchar(30), email varchar(30), password varchar(30));
8
9 insert into users values('123','jetson@gmail.com', '12345');
10 insert into users values('124','joshua@gmail.com', '12345');
11 select * from users;
12
13
14
15 create table sample(name varchar(30), mail varchar(30), phn varchar(30));
16 insert into sample values('jetson', 'jetson@gmail.com', '7951717434');
17 select * from sample;
18 update sample set mail= 'jet@gmail.com' where name = 'jetson';
19 delete from sample where name = 'jetson';
```
- The "Result" pane shows the output of the last executed statement: "select * from sample". The run time is 0.004 s. The result set contains one row:

NAME	MAIL	PHN
jetson	jet@gmail.com	7951717434

Bottom Screenshot:

- The console shows the same script as above, but the last statement is "delete from sample where name = 'jetson';".
- The "Result" pane shows the output of the last executed statement: "select * from sample". The run time is 0.300 s. The result set is empty, displaying "You don't have any data currently".

Base.html:

```
<html>

<head>

<link rel="stylesheet" href="static/css/main.css">

{% block head %}

{% endblock %}

</head>
```

```
<body>

    {% block body %}

    {% endblock %}

</body>

</html>
```

Main.css:

```
.login {
    width: 60%;

    border-radius: 1rem;

    background: gray;

    padding: 10px;

    margin: auto;

    text-align: center;

    font-family: 'Gill Sans', 'Gill Sans MT', Calibri, 'Trebuchet MS', sans-serif;
}

.back{
    background-color: black;
}

.sub{
    background-color: black;

    color: white;

    border-radius: 1rem;
}

.box{
    border-radius: 1rem;

    background-color: black;

    color: white;
}
```

Dashboard.html:

```
{% extends 'base.html' %}

{% block head %}
```

```

<title>Login</title>

{% endblock %}

{% block body %}

<br><br><br><br><br>  <br><br><br><br><br>

<div class="login">

    <h1>

        Welcome to dashboard.. {{ msg }}

    </h1>

    <hr>

</div>

{% endblock %}

```

Login.html:

```

{% extends 'base.html' %}

{% block head %}

<title>Login</title>

{% endblock %}

{% block body %}

<br><br><br><br><br><br><br>

<div class="login">

    <h1>

        Login

    </h1>

    <hr>

    <form action="/login" method="POST">

        <br>

        username: <input type="text" class="box" name="username" id="username"><br><br>

        Password: <input type="password" class="box" name="passwd" id="passwd"><br><br>

        <input type="submit" class="sub" value="Sign in">

    </form>

    Don't have account? <a href="/signup">Sign up</a>

</div>

```

```
{% endblock %}
```

Signup.html:

```
{% extends 'base.html' %}

{% block head %}

<title>Login</title>

{% endblock %}

{% block body %}

<br><br><br><br><br> <br><br>

<div class="login">

    <h1>

        Sign Up

    </h1>

    <hr>

    <form action="/signup" method="POST">

        <br>

        username: <input type="text" class="box" name="username" id="username"><br><br>

        email: <input type="text" class="box" name="email" id="email"><br><br>

        Password: <input type="password" class="box" name="passwd" id="passwd"><br><br>

        <input type="submit" class="sub" value="Sign up"><br>

    </form>

    Already have an account? <a href="/login">Login</a>

</div>

{% endblock %}
```

App.py:

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

import ibm_db

import re

import ibm_db_dbi

app = Flask(__name__)

app.secret_key = 'a'
```

```
conn = ibm_db.connect("DATABASE=bludb;HOSTNAME=b70af05b-76e4-4bca-a1f5-23dbb4c6a74e.c1ogj3sd0tgtu0lqde00.databases.appdomain.cloud;PORT=32716;SECURITY=SSL;SSLServerCertificate=DigiCertGlobalRootCA.crt;UID=xyn12614;PWD=oXjOuam0AOYeLVKq", "", "")
```

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

```
def login():
```

```
    global userid
```

```
    msg = "
```

```
    if request.method == 'POST':
```

```
        username = request.form['username']
```

```
        password = request.form['passwd']
```

```
        sql = "select * from users where username = ? and password = ?"
```

```
        stmt = ibm_db.prepare(conn, sql)
```

```
        ibm_db.bind_param(stmt, 1, username)
```

```
        ibm_db.bind_param(stmt, 2, password)
```

```
        ibm_db.execute(stmt)
```

```
        account = ibm_db.fetch_assoc(stmt)
```

```
        print(account)
```

```
        if account:
```

```
            session['Loggedin'] = True
```

```
            session['id'] = account['USERNAME']
```

```
            userid = account['USERNAME']
```

```
            session['username'] = account['USERNAME']
```

```
            msg = 'logged in successfully'
```

```
            return render_template('dashboard.html', msg=msg)
```

```
        else:
```

```
            msg = 'Incorrect user credentials'
```

```
            return render_template('dashboard.html', msg=msg)
```

```
    else:
```

```
        return render_template('login.html')
```

```

@app.route('/signup', methods=["POST", "GET"])
def signup():
    if request.method == "POST":
        username = request.form['username']
        email = request.form['email']
        password = request.form['passwd']
        sql = "select * from users where username = ?"
        stmt = ibm_db.prepare(conn, sql)
        ibm_db.bind_param(stmt, 1, username)
        ibm_db.execute(stmt)
        account = ibm_db.fetch_assoc(stmt)
        print(account)
        if account:
            msg = 'Account already exists'
        elif not re.match(r'^@]+@^[^@]+\.[^@]+', email):
            msg = 'invalid email'
        elif not re.match(r'[A-Za-z0-9]+', username):
            msg = 'name must contain characters and numbers'
        else:
            insert_sql = "insert into users values(?,?,?)"
            prep_stmt = ibm_db.prepare(conn, insert_sql)
            ibm_db.bind_param(prepare_stmt, 1, username)
            ibm_db.bind_param(prepare_stmt, 2, email)
            ibm_db.bind_param(prepare_stmt, 3, password)
            ibm_db.execute(prepare_stmt)
            print("successs")
            msg = "successfully signed up"
        return render_template('dashboard.html', msg=msg)
    else:
        return render_template('signup.html')

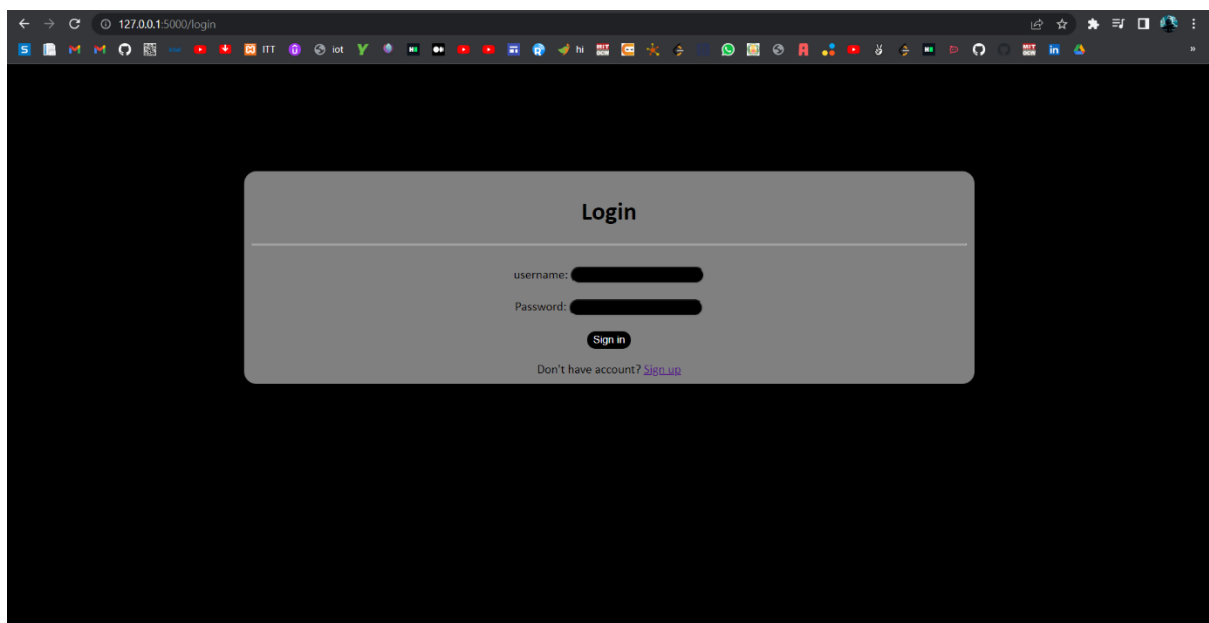
```



```
if __name__ == '__main__':  
    app.run(debug=False)
```

Output:

Login:



Browser address bar: bpe61bfd0365e9u4psdglite.db2.cloud.ibm.com/crm%3Av1%3Abluemix%3Apublic%3Adashdb-for-transactions%3Aus-south%3Aa%2F1ce102a564c4690a003d7da2a8486aa%3Ae8e998e7-37af...

TBM Db2 on Cloud

Error: Please check network connectivity then try again. [Show logs](#)

SQL Editor: *Untitled - 1 x

```
1 create table user(id int GENERATED BY DEFAULT AS IDENTITY NOT NULL, name varchar(50));
2
3
4 alter table user add age int;
5 select * from hai;
6 drop table user;
7
8 create table users(username varchar(30), email varchar(30), password varchar(30));
9
10 insert into users values('123','jetson@gmail.com', '12345');
11 insert into users values('124','joshua@gmail.com', '12345');
12 select * from users;
```

Run selected ☐ Remember my selection

Result - Oct 9, 2022 9:25:17 PM

select * from users Run time: 0.019 s

Result set 1

USERNAME	EMAIL	PASSWORD
124	joshua@gmail.com	12345
123	jetson@gmail.com	12345
126	rj@gmail.com	12345

With correct credentials:

Browser address bar: 127.0.0.1:5000/login

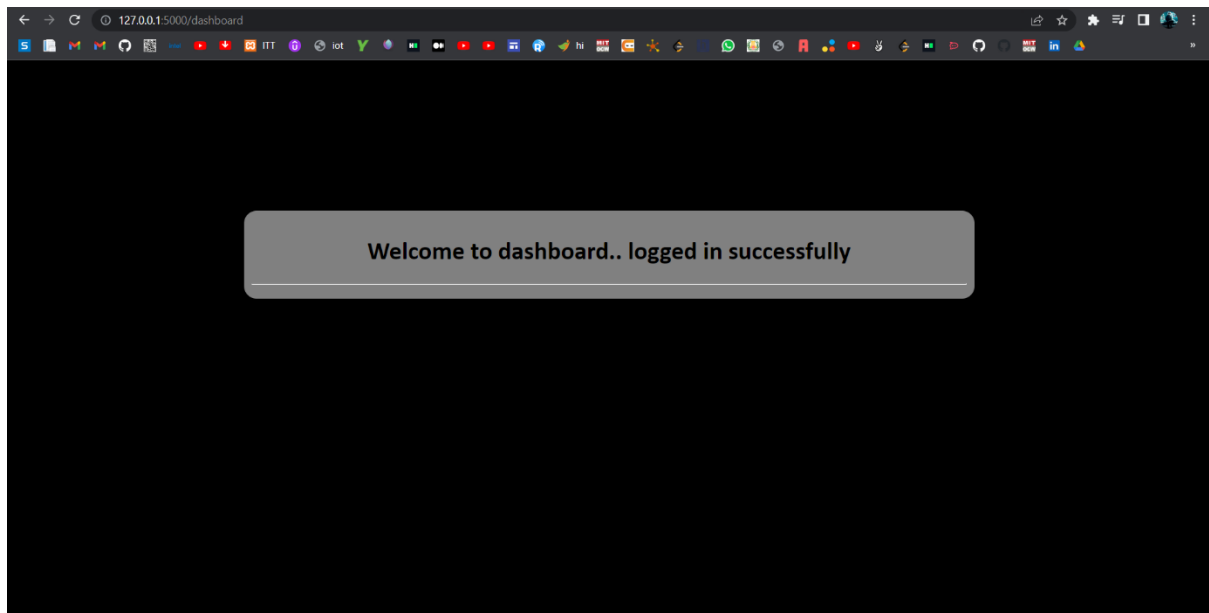
Login

username: 123

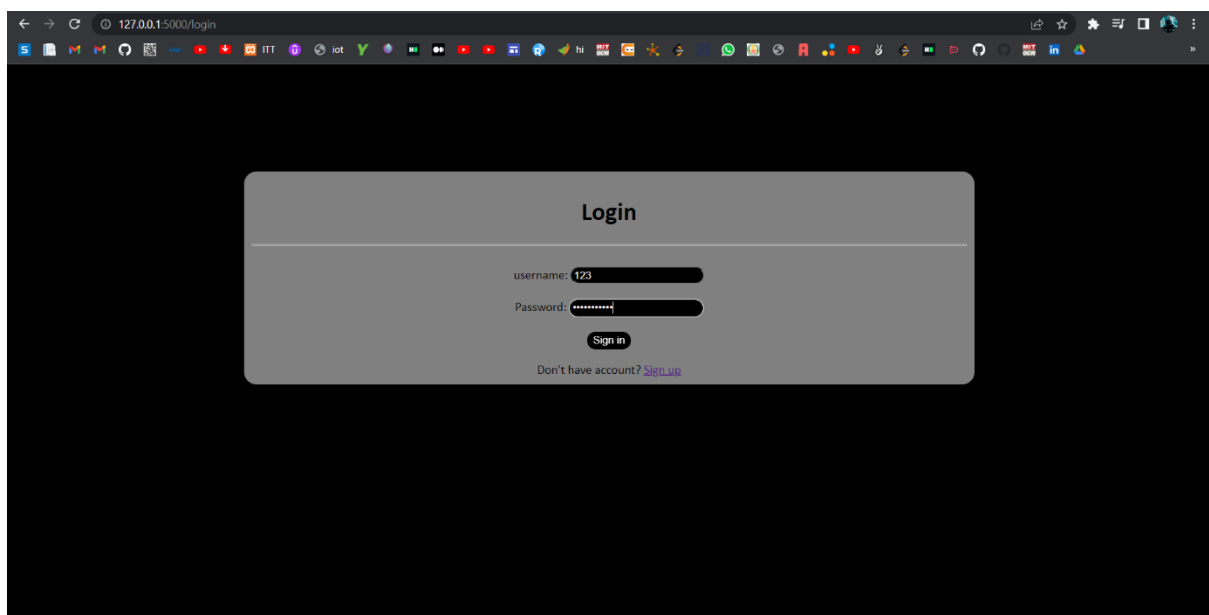
Password:

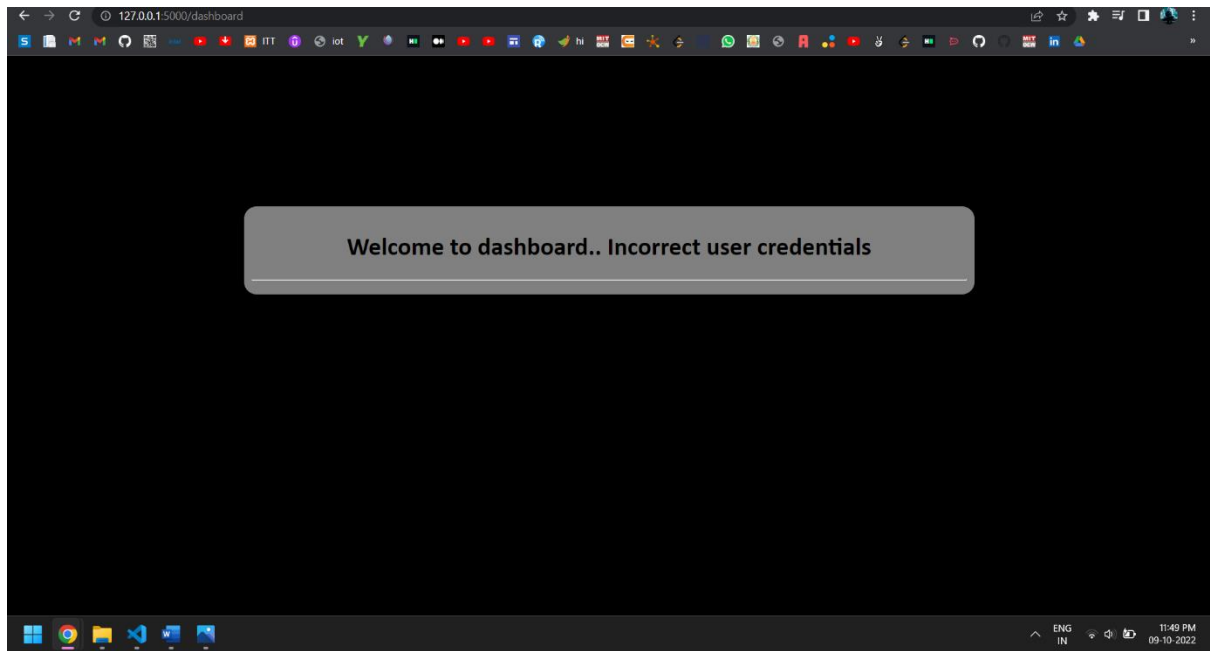
[Sign in](#)

Don't have account? [Sign up](#)



With wrong credentials:





Sign up:

127.0.0.1:5000/signup

Sign Up

username: 128

email: ravi@gmail.com

Password:

[Sign up](#)

Already have an account? [Login](#)

IBM Db2 on Cloud

You don't have the appropriate permissions to access the requested resource. [Show logs](#)

Error: Please check network connectivity then try again. [Show logs](#)

SQL

```
1 create table user(id int GENERATED BY DEFAULT AS IDENTITY NOT NULL, name varchar(30), age int);
2 alter table user add age int;
3 select * from hai;
4 drop table user;
5 create table users(username varchar(30), email varchar(30), password varchar(30));
6 insert into users values('123','jetson@gmail.com', '12345');
7 insert into users values('124','joshua@gmail.com', '12345');
8 select * from users;
```

Result - Oct 9, 2022 9:27:55 PM

select * from users Run time: 0.020 s

Result set 1

USERNAME	EMAIL	PASSWORD
124	joshua@gmail.com	12345
123	jetson@gmail.com	12345
126	rj@gmail.com	12345
128	ravi@gmail.com	67990

[Run selected](#) ☒ Remember my selection