

Question-1:

Create User table with email, username, roll number, password.

The screenshot shows the IBM Db2 on Cloud web interface. The 'Tables' tab is selected, displaying a list of tables. The 'USER' table is highlighted. The 'Table definition' panel on the right shows the table structure:

Name	Data type	Nullable	Length	Scale
EMAIL	VARCHAR	Y	32	0
USERNAME	VARCHAR	Y	32	0
ROLL_NUMBER	VARCHAR	Y	32	0
PASSWORD	VARCHAR	Y	32	0

- insert into user values('abi@gmail.com','Abirami','01','a');
- insert into user values('dd@gmail.com','Divya','02','b');
- insert into user values('nanditha@gmail.com','Nanditha','03','c');
- insert into user values('nithyasri@gmail.com','Nithya Sri','04','d');

The screenshot shows the IBM Db2 on Cloud web interface displaying the data for the 'PRJ41491.USER' table. The table has four columns: EMAIL, USERNAME, ROLL_NUMBER, and PASSWORD. The data is as follows:

EMAIL	USERNAME	ROLL_NUMBER	PASSWORD
abi@gmail.com	Abirami	01	a
dd@gmail.com	Divya	02	b
nanditha@gmail.com	Nanditha	03	c
nithyasri@gmail.com	Nithya Sri	04	d

Question-2:

Perform UPDATE, DELETE Queries with user table

1. UPDATE user SET email='divya@gmail.com' WHERE roll_number='02';

The screenshot displays the IBM Db2 on Cloud web interface. The top section shows a SQL editor with the following query:

```
1 UPDATE user
2 SET email='divya@gmail.com'
3 WHERE roll_number='02';
```

The query has been executed successfully, as indicated by the 'History' tab showing a status of 'Success' and a runtime of 0.040 s.

The bottom section shows the 'Tables' view for the 'PRJ41491.USER' table. The table contains the following data:

EMAIL	USERNAME	ROLL_NUMBER	PASSWORD
abi@gmail.com	Abirami	01	a
divya@gmail.com	Divya	02	b
nanditha@gmail.com	Nanditha	03	c
nithyasri@gmail.com	Nithya Sri	04	d

2. DELETE FROM user WHERE roll_number=04;

The screenshot displays the IBM Db2 on Cloud web interface. The top section shows a SQL editor with the query `delete from user where roll_number=04;` entered. Below the editor, a history table shows the execution of this query. The bottom section shows the 'Tables' view for the database 'PRJ41491.USER', displaying a table with columns EMAIL, USERNAME, ROLL_NUMBER, and PASSWORD. The table contains three rows of data.

SQL Execution History:

Script	Date	Status	Runtime
Untitled - 1	Oct 5, 2022 4:24:32 PM	✓ 1	0.020 s
delete from user where roll_number=04		✓	0.020 s

Table Data:

EMAIL	USERNAME	ROLL_NUMBER	PASSWORD
abi@gmail.com	Abirami	01	a
dd@gmail.com	Divya	02	b
nanditha@gmail.com	Nanditha	03	c

Question 3:

Connect python code to db2

Program:

```
from flask import Flask
import ibm_db
```

```

app=Flask(__name__)
try:
    conn=ibm_db.connect("DATABASE=bludb;HOSTNAME=6667d8e9-9d4d-4ccb-ba32-
21da3bb5aafc.c1ogj3sd0tgtu0lqde00.databases.appdomain.cloud;PORT=30376;SECURITY=SSL;SSLSe
rverCertificate=DigiCertGlobalRootCA.crt;UID=prj41491;PWD=8NNe2bnsXzveXAcg", "", "")
except:
    print("Unable to connect: ",ibm_db.conn_error())

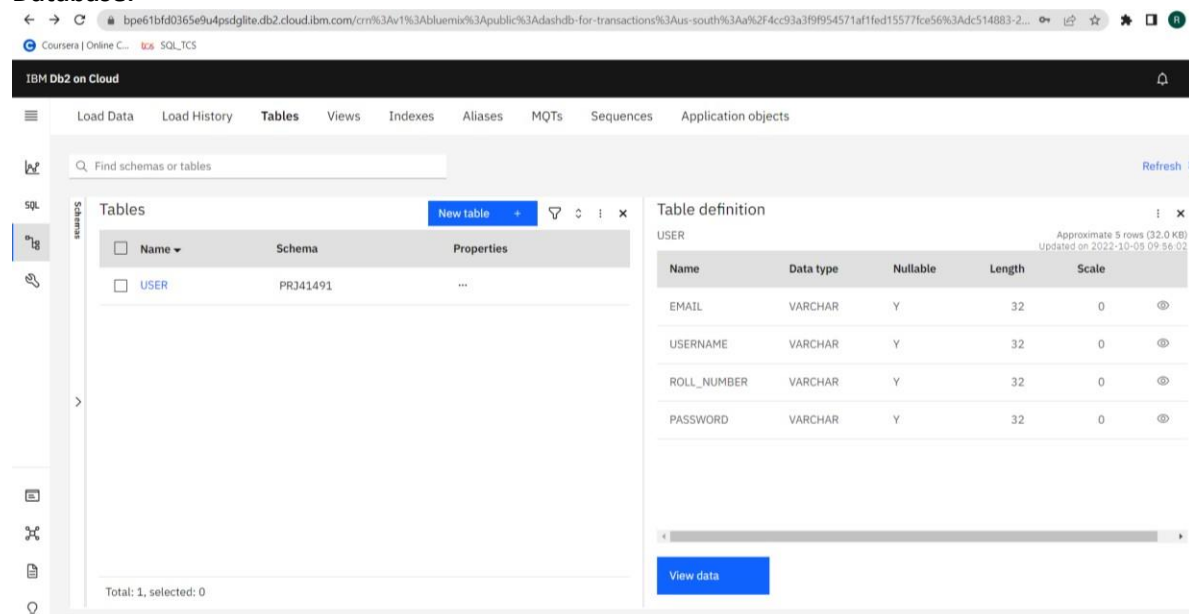
@app.route("/")
def dashboard():
    return "welcome"
if __name__=='__main__':
    app.run(debug=True)

```

Question 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 username and password. If the user is valid show the welcome page.

Database:



The screenshot shows the IBM Db2 on Cloud web interface. The 'Tables' tab is selected, and the 'USER' table is highlighted. The table definition is shown on the right, with columns: EMAIL, USERNAME, ROLL_NUMBER, and PASSWORD, all of type VARCHAR(32) and nullable.

Name	Data type	Nullable	Length	Scale
EMAIL	VARCHAR	Y	32	0
USERNAME	VARCHAR	Y	32	0
ROLL_NUMBER	VARCHAR	Y	32	0
PASSWORD	VARCHAR	Y	32	0

Program:

User.py

```

from flask import Flask, render_template,request,redirect,url_for,session,flash
import ibm_db

```

```

app=Flask(__name__)
app.secret_key='a'

```

```

try:
    conn=ibm_db.connect("DATABASE=bludb;HOSTNAME=6667d8e9-9d4d-4ccb-ba32-
21da3bb5aafc.c1ogj3sd0tgtu0lqde00.databases.appdomain.cloud;PORT=30376;SECURITY=SSL;SSLSe
rverCertificate=DigiCertGlobalRootCA.crt;UID=prj41491;PWD=8NNe2bnsXzveXAcg","","")
except:
    print("Unable to connect: ",ibm_db.conn_error())

@app.route("/")
def dash():
    return render_template('register.html',msg=" ")

@app.route("/register",methods=['GET','POST'])
def register():
    error = None
    if request.method=='POST':
        username=request.form['username']
        email=request.form['email']
        roll_number=request.form['rollnumber']
        password=request.form['password']
        sql="SELECT * FROM user WHERE roll_number=?"
        prep_stmt=ibm_db.prepare(conn,sql)
        ibm_db.bind_param(prepare_stmt,1,roll_number)
        ibm_db.execute(prepare_stmt)
        account=ibm_db.fetch_assoc(prepare_stmt)
        print(account)
        if account:
            error="Account already exists! Log in to continue !"
        else:
            insert_sql="INSERT INTO user values(?,?,?,?)"
            prep_stmt=ibm_db.prepare(conn,insert_sql)
            ibm_db.bind_param(prepare_stmt,1,email)
            ibm_db.bind_param(prepare_stmt,2,username)
            ibm_db.bind_param(prepare_stmt,3,roll_number)
            ibm_db.bind_param(prepare_stmt,4,password)
            ibm_db.execute(prepare_stmt)
            flash(" Registration successfull. Log in to continue !")
    else:
        pass
    return render_template('login.html',error=error)

@app.route('/login',methods=['GET','POST'])
def login():
    error = None
    if request.method=='POST':
        username=request.form['username']
        password=request.form['password']

```

```

sql="SELECT * FROM user 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']
    session["username"]=account["USERNAME"]
    flash("Logged in successfully!")
    return redirect(url_for("welcome_page"))
else:
    error="Incorrect username / password"
    return render_template('login.html',error=error)

@app.route('/welcome')
def welcome_page():
    return render_template("welcome.html",user=session['id'])

if __name__=='_main_':
    app.run(debug=True)

```

register.html

```

<html>
<head>
    <title>Registration page</title>
    <link rel="stylesheet" href="{{url_for('static', filename='style.css')}}">
</head>
<body>
    <div class="center"> <br /><br />
    <form action="/register" method="POST">
        <h2>Student Registration Portal</h2> <br /><br />
        <p> Enter Email ID:</p>
        <input type="email" name="email"/>
        <p> Enter Username:</p>
        <input type="text" name="username" />
        <p> Enter Password:</p>
        <input type="password" name="password"/>
        <p> Enter Roll number:</p>
        <input type="text" name="rollnumber"/>
        </br></br></br>
        <input type="submit" value="submit" />
    </form>
</body>
</html>

```

```

        </form>
    </div>
</body>
</html>

```

login.html

```

<html>
<head>
    <title>Login page</title>
    <link rel="stylesheet" href="{{url_for('static', filename='style.css')}}">
</head>
<body>
{% if error %}
    <p><strong style="color:red">Error</strong>: {{error}}</p>
{% endif %}
{% with messages = get_flashed_messages() %}
    {% if messages %}
        {% for message in messages %}
            <p style="color:green">{{ message }}</p>
        {% endfor %}
    {% endif %}
{% endwith %}
<div class="center"> <br /><br />
<form action="/login" method="POST">
    <h1>Login</h1> <br /><br />
    <p> Enter Username:</p>
    <input type="text" name="username" />
    <p> Enter Password:</p>
    <input type="password" name="password"/>
    <br><br><br>
    <input type="submit" value="submit" />
</form>
</div>
</body>
</html>

```

welcome.html

```

<html>
<head>
    <title>welcome page</title>
    <link rel="stylesheet" href="{{url_for('static', filename='style.css')}}">
</head>
<body>

```

```
{% with messages = get_flashed_messages() %}
    {% if messages %}
        {% for message in messages %}
            <p style="color:green">{{ message }}</p>
        {% endfor %}
    {% endif %}
{% endwith %}
```



```
<br /><br />
<center>
<h2 > User {{user}}</h2> <br />
<br /><br />
<p><i>As long as you keep yourself focused, you will have a mighty mind that can make
everything possible.</i></h3>
</center><br />
<div style="margin:40px">
<p>Education can open our eyes and expand our minds unlike anything else.
It allows us to continually reshape how we see the world, leading to an improved and more well-
rounded life.
We welcome you with a sense of pride and excitement.Education is a state of mind. It's a way of
thinking. It's an attitude. On an individual level it's in constant flux, always changing.
Education is not, as most falsely believe, a bunch of certificates. Nor is it a set of abbreviations before
or after one's name.</p>
<p>Utilize every moment to prepare your mind and body for future endeavors!
Always look for how much progress can be made rather than perfection. Life will be a lot easier.
Do not give up no matter what, always try just one more time, and eventually you will be successful.
Victories teach you to be humble, but mistakes make you more skillful. So just do your best!
Your hard work will never go in vain! Be diligent towards your dreams and you will reach there soon
enough!
Nothing can stop you from reaching your goals as long as you work hard. Your goals are simply
dedication and determination away.</p>

<p>In today's world everyone wants to be successful but what is a success. The perspective of
success varies from person to person. For the record, the people before us have a different view on
success and the person after us will have a different view on success.
Moreover, people compare different people performance to evaluate their success. But success is not
something that you can copy from others. You have to make your own path to achieving success. In
modern-day, people are obsessed with success because of the glamour and lifestyle of successful
people.</p>
<h3>What formulates a person successful?</h3>
<p>There are many ways in the world to be successful. But most people think of celebrities, artist,
politicians, and businessmen whenever they heard the word success.
Moreover, they think doing what they will make you successful but that not the case. They forget the
most basic thing that makes a person successful that is their hard work, dedication, and the desire to
achieve their dream. More importantly, they what they like to do not what that others told them to
do. Successful people do what they like to do also they do what they feel correct for their business.
```


If you look in the dictionary for the meaning of the word success then you will find that it means the achievement of one's goal or aim. So, basically, anyone can achieve success by simply achieving their aim or goal.</p>

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

style.css

```
.center{  
margin: auto;  
width: 15%;  
}  
h2{  
text-align:center;  
}  
input{  
border-radius:5px;  
padding:7px;  
}
```

Output:

Student Registration Portal

Enter Email ID:

Enter Username:

Enter Password:

Enter Roll number:

IBM Db2 on Cloud

Load DataLoad HistoryTablesViewsIndexesAliasesMQTsSequencesApplication objects

SQL

PRJ41491.USER

Back

Export to CSV

EMAIL	USERNAME	ROLL_NUMBER	PASSWORD
abc@gmail.com	abcd	05	a
abi@gmail.com	Abirami	01	a
divya@gmail.com	Divya	02	b
nanditha@gmail.com	Nanditha	03	c
nithyasri@gmail.com	Nithya Sri	04	d

localhost:5000/register

Coursera | Online C...SQL_TCS

Registration successfull. Log in to continue !

Login

Enter Username:

abcd

Enter Password:

1

submit

Logged in successfully!

User abcd



As long as you keep yourself focused, you will have a mighty mind that can make everything possible.

Education can open our eyes and expand our minds unlike anything else. It allows us to continually reshape how we see the world, leading to an improved and more well-rounded life. We welcome you with a sense of pride and excitement. Education is a state of mind. It's a way of thinking. It's an attitude. On an individual level it's in constant flux, always changing. Education is not, as most falsely believe, a bunch of certificates. Nor is it a set of abbreviations before or after one's name.

Utilize every moment to prepare your mind and body for future endeavors! Always look for how much progress can be made rather than perfection. Life will be a lot easier. Do not give up no matter what, always try just one more time, and eventually you will be successful. Victories teach you to be humble, but mistakes make you more skillful. So just do your best! Your hard work will never go in vain! Be diligent towards your dreams and you will reach there soon enough! Nothing can stop you from reaching your goals as long as you work hard. Your goals are simply dedication and determination away.

In today's world everyone wants to be successful but what is a success. The perspective of success varies from person to person. For the record, the people before us have a different view on success and the person after us will have a different view on success. Moreover, people compare different people performance to evaluate their success. But success is not something that you can copy from others. You have to make your own path to achieving success. In modern-day, people are obsessed with success because of the glamour and lifestyle of successful people.

What formulates a person successful?