

Assignment -2

Assignment Date	26 September 2022
Team ID	PNT2022TMID28027
Project Name	Personal Expense Tracker Application
Maximum Marks	2 Marks

Question-1:

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

IBM Db2 on Cloud

Load Data Load History **Tables** Views Indexes Aliases MQTs Sequences Application objects

Find schemas or tables Refresh

Tables New table +

Name Schema Properties

You don't have any data currently

Total: 0, selected: 0

New table ZGD02180

User

Add column +

Name	Data type	Nullable	Length	Scale
Roll_no	INTEGER	N	--	--
Username	CHAR	N	25	--
Email	VARCHAR	Y	32	--
Password	VARCHAR	N	8	--

Generate DDL Create

Insert value into table

IBM Db2 on Cloud

Data objects My script

Filter objects

ZGD02180

***Untitled - 1**

Beta Classic

Syntax assistant Run all

```
1 insert into User values (5036,'Manjaarika','manja@gmail.com','Man1310');
2 insert into User values(5051,'Rajashree','raji@gmail.com','Raji0205');
3 insert into User values(5055,'Shruthi','shruthi@gmail.com','Shru1409');
4 insert into User values(5059,'Varsha','varsha@gmail.com','Var3003');
5
```

History

Find history

Script	Date	Status	Runtime
Untitled - 1	Oct 10, 2022 9:22:21 PM	✓ 4	0.036 s
insert into User values (5036,'Manjaarika','manja@gmail.com','Man1310')		✓	0.010 s
insert into User values(5051,'Rajashree','raji@gmail.com','Raji0205')		✓	0.009 s
insert into User values(5055,'Shruthi','shruthi@gmail.com','Shru1409')		✓	0.009 s
insert into User values(5059,'Varsha','varsha@gmail.com','Var3003')		✓	0.008 s

IBM Db2 on Cloud

Load Data Load History **Tables** Views Indexes Aliases MQTs Sequences Application objects

ZGD82180.USER

Back

Export to CSV

ROLL_NO	USERNAME	EMAIL	PASSWORD
5036	Manjaarika	manja@gmail.com	Man1310
5051	Rajashree	raji@gmail.com	Raji0205
5055	Shruthi	shruthi@gmail.com	Shru1409
5059	Varsha	varsha@gmail.com	Var3003

Question-2:

Perform UPDATE, DELETE Queries with user table

Update the table

IBM Db2 on Cloud

Data objects My script

Filter objects

ZGD82180

*Untitled - 1

Syntax assistant Run all

```

1 UPDATE User
2 SET Username = 'Manja'
3 WHERE Roll_no=5036;

```

History

Find history

Script	Date	Status	Runtime
Untitled - 1	Oct 10, 2022 9:31:17 PM	1	0.007 s
UPDATE User SET Username = 'Manja' WHERE Roll_no=5036		1	0.007 s
Untitled - 1	Oct 10, 2022 9:27:26 PM	1	0.521 s
update User set USERNAME='Manja'where ROLL_NO=3936		1	0.521 s
Untitled - 1	Oct 10, 2022 9:26:54 PM	1	0.009 s

IBM Db2 on Cloud

Load DataLoad HistoryTablesViewsIndexesAliasesMQTsSequencesApplication objects

ZGD82180.USER

Back

Export to CSV

ROLL_NO	USERNAME	EMAIL	PASSWORD
5036	Manja	manja@gmail.com	Man1310
5051	Rajashree	raji@gmail.com	Raji0205
5055	Shruthi	shruthi@gmail.com	Shru1409
5059	Varsha	varsha@gmail.com	Var3003

Delete a row in the table

The screenshot displays the IBM Db2 Cloud interface. On the left, there's a sidebar with navigation icons and a search bar labeled "Filter objects". The main area shows a script editor titled "*Untitled - 1 x" with a code editor containing two SQL statements:

```
1 DELETE FROM User;
2 WHERE Roll_no=5059;
```

Below the script editor, there's a "History" section with a search bar "Find history". It contains a table listing executed scripts:

Script	Date	Status	Runtime
^ Untitled - 1 DELETE FROM User WHERE Roll_no=5059	Oct 10, 2022 10:07:59 PM	✓ 1	0.010 s
^ Untitled - 1 insert into User values(5059,'Varsha','varsha@gmail.com','Var3003')	Oct 10, 2022 10:07:34 PM	✓ 1	0.008 s
^ Untitled - 1	Oct 10, 2022 10:07:10 PM	⚠ 1	0.005 s

The interface also includes a top navigation bar with "Data objects" and "My script" tabs, a toolbar with various icons, and a right-hand panel with "Beta" and "Classic" options.

IBM Db2 on Cloud

Load Data Load History **Tables** Views Indexes Aliases MQTs Sequences Application objects

ZGD82180.USER

Back

Export to CSV

ROLL_NO	USERNAME	EMAIL	PASSWORD
5036	Manja	manja@gmail.com	Man1310
5051	Rajashree	raji@gmail.com	Raji0205
5055	Shruthi	shruthi@gmail.com	Shru1409

Question 3:

Connect python code to db2

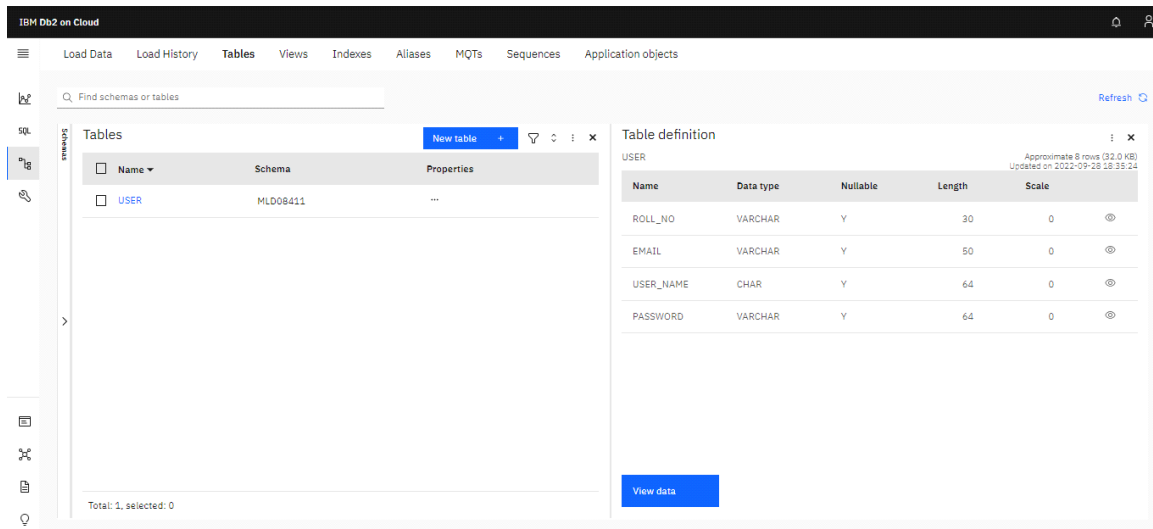
Program:

```
from flask import Flask
import ibm_db
app=Flask(__name__)
app.secret_key='a'
try:
    conn=ibm_db.connect("DATABASE=bludb;HOSTNAME=2f3279a5-73d1-4859-88f0-
a6c3e6b4b907.c3n41cmd0nqnkr39u98g.databases.appdomain.cloud;PORT=30756;SECURITY
=SSL;SSLServerCertificate=DigiCertGlobalRootCA.crt;UID=mld08411;PWD=mCn9EnGnLG
Gbg2JH","","")
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, displaying a list of tables. The 'USER' table is highlighted. The 'Table definition' panel on the right shows the schema for the 'USER' table.

Name	Data type	Nullable	Length	Scale
ROLL_NO	VARCHAR	Y	30	0
EMAIL	VARCHAR	Y	50	0
USER_NAME	CHAR	Y	64	0
PASSWORD	VARCHAR	Y	64	0

Program:

User.py

```
from flask import Flask, flash, render_template, request, redirect, url_for, session
import ibm_db
app=Flask(__name__)
app.secret_key='a'
try:
    conn=ibm_db.connect("DATABASE=bludb;HOSTNAME=2f3279a5-73d1-4859-88f0-
a6c3e6b4b907.c3n41cmd0nqnrk39u98g.databases.appdomain.cloud;PORT=30756;SECURITY
=SSL;SSLServerCertificate=DigiCertGlobalRootCA.crt;UID=mld08411;PWD=mCn9EnGnLG
Gbg2JH", "", "")
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_no=?"
        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,roll_number)
            ibm_db.bind_param(prepare_stmt,2,email)
            ibm_db.bind_param(prepare_stmt,3,username)
            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 user_name=? 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['USER_NAME']
    session["username"]=account["USER_NAME"]
    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>
</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>
```

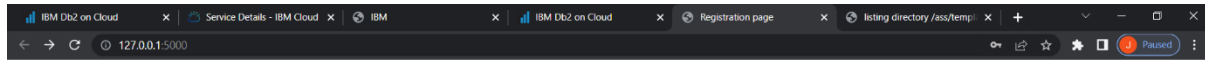
welcome.html

```
<html>
  <head>
    <title>Login 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 > Welcome {{user}}</h2>
    </center>
  </body>
</html>
```

style.css

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

Output:



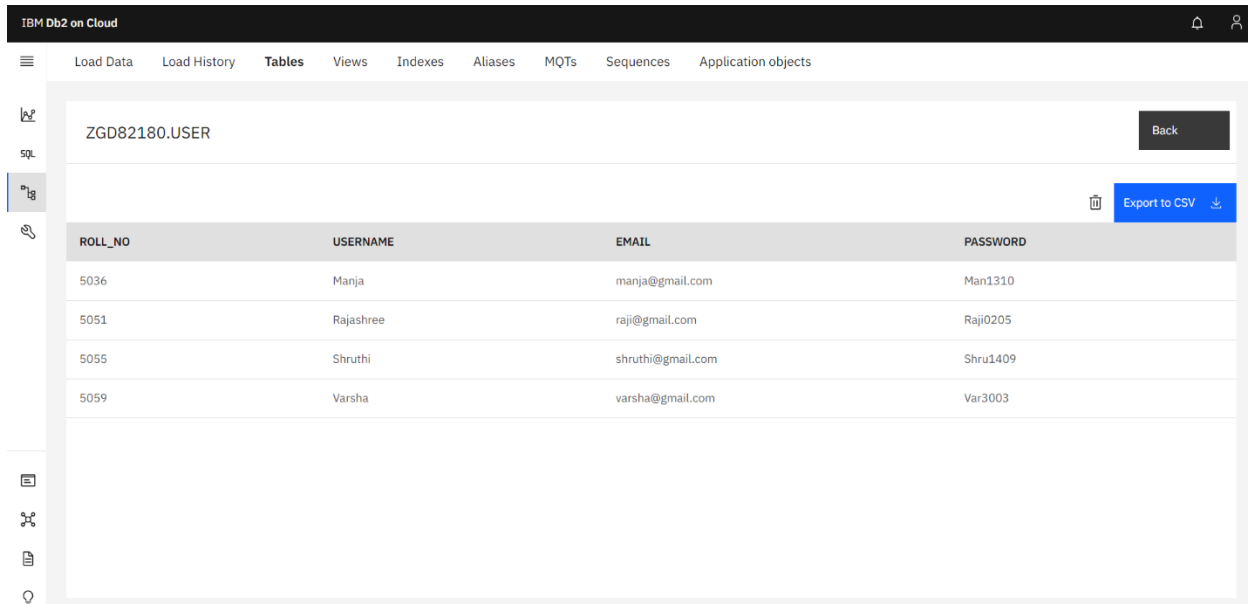
Student Registration Portal

Enter Email ID:

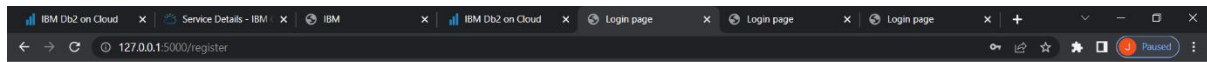
Enter Username:

Enter Password:

Enter Roll number:



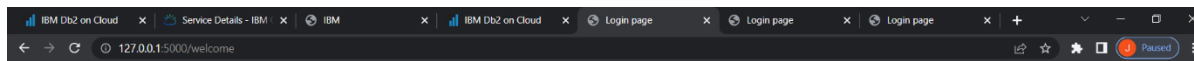
ROLL_NO	USERNAME	EMAIL	PASSWORD
5036	Manja	manja@gmail.com	Man1310
5051	Rajashree	raji@gmail.com	Raji0205
5055	Shruthi	shruthi@gmail.com	Shru1409
5059	Varsha	varsha@gmail.com	Var3003



Login

Enter Username:

Enter Password:



Welcome Rajashree