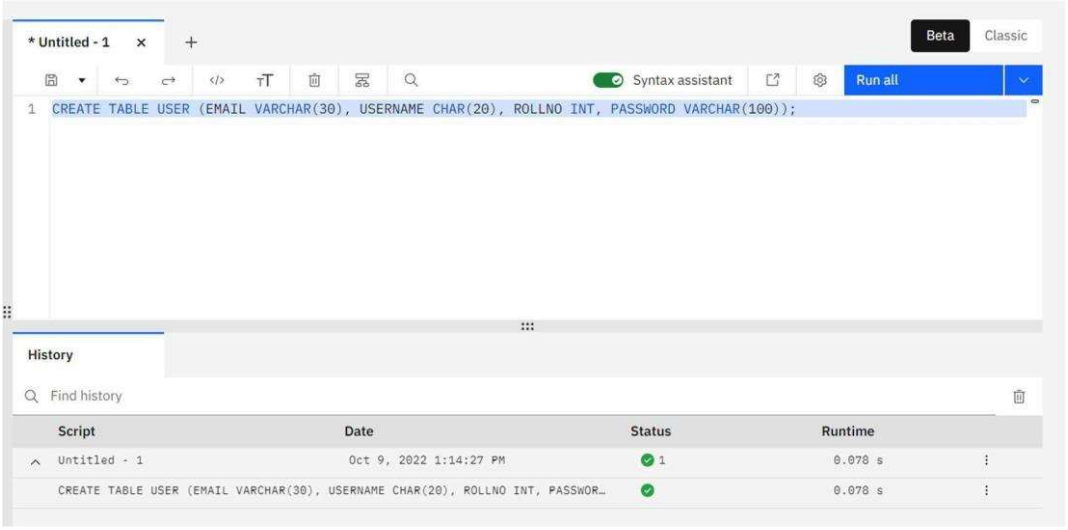
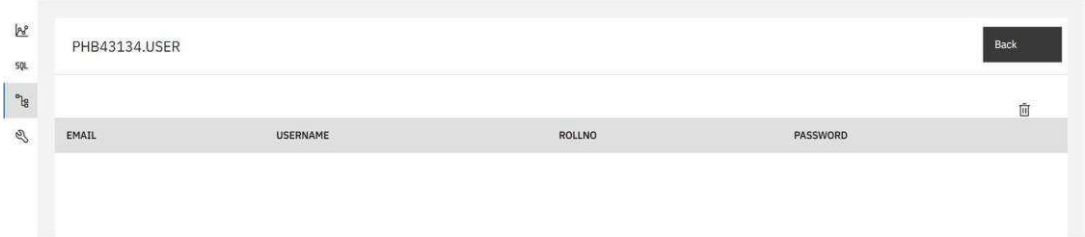
Creating IBM DB2 account and connect with python code

Assignment Date	12 NOV 2022
Student Name	Kishorekumar P
Student Roll Number	621319104027
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**

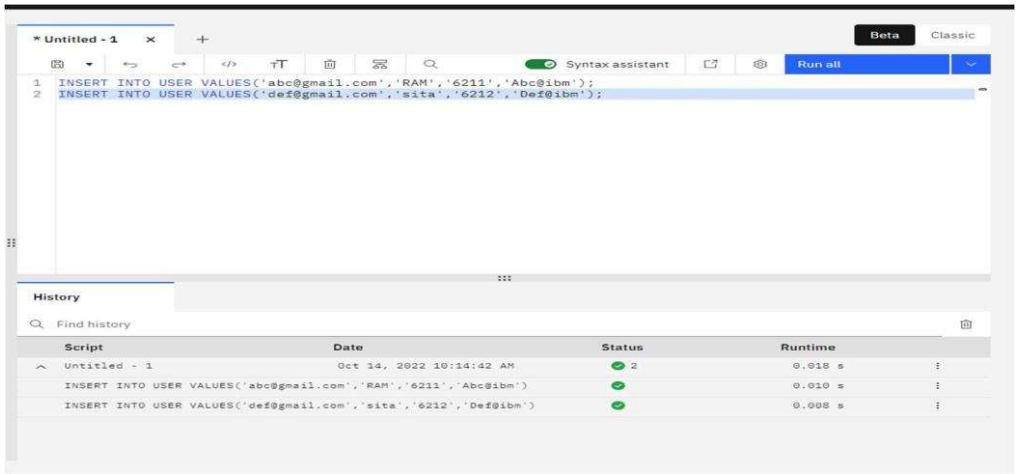
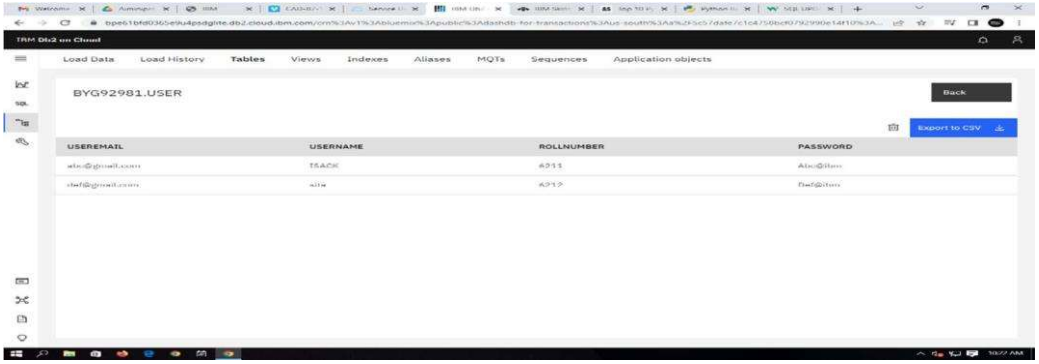
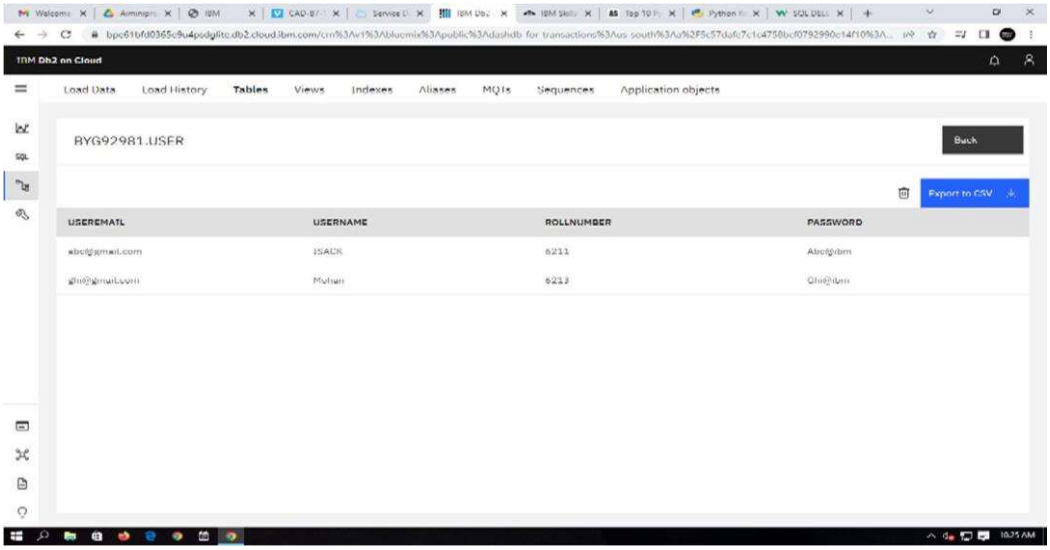


Table View:



UPDATE:

Table View:



DELETE:

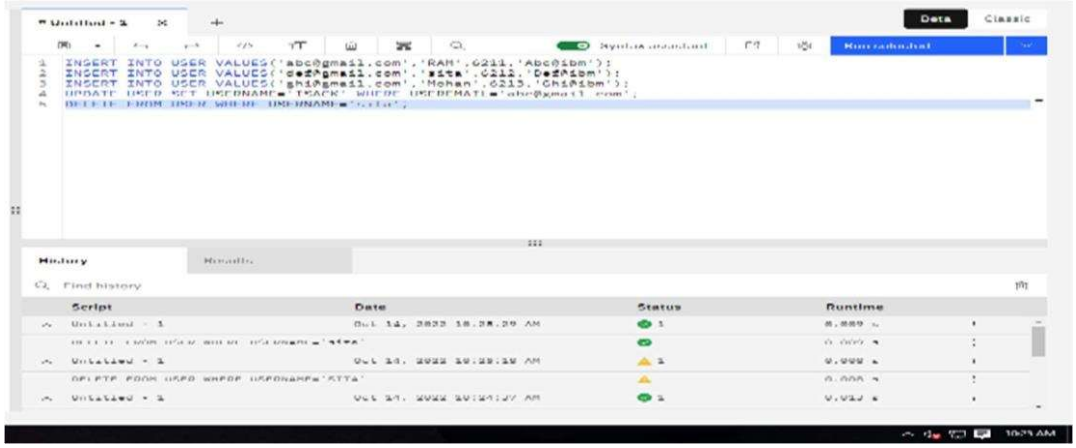
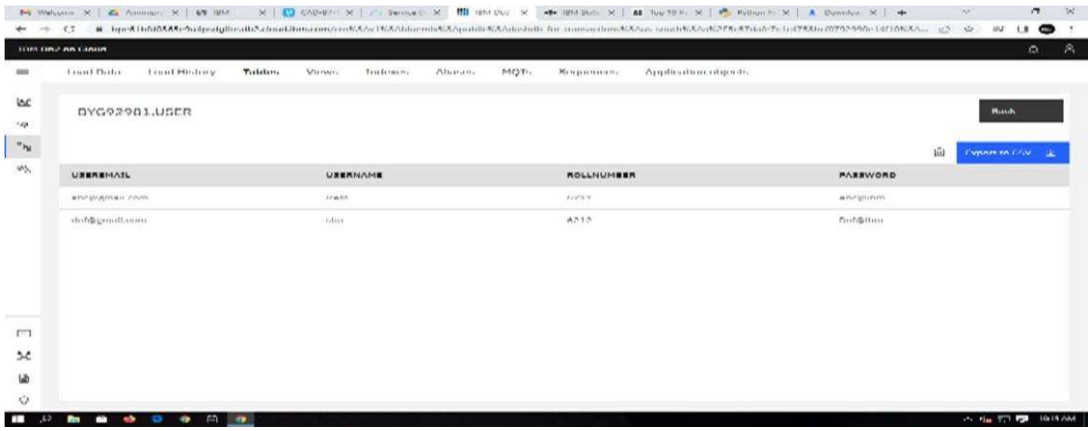


TABLE View:



3. Connect python with db2.

Solution:

```
import ibm_db
conn = ibm_db.connect("DATABASE=bludb;HOSTNAME= 1bbf73c5-d84a-4bb0-85b9-ab1a4348f4a4.c3n41cmd0nqnrk39u98g.databases.appdomain.cloud;PORT=32286;SECURITY=SSL;SSLS erverCertificate=DigiCertGlobalRootCA.crt;PROTOCOL=TCPIP;UID= byg92981;PWD=" 9jZpv8EpbeEMaB6i",'','')
```

4. Create a flask app with the registration page. Login page and the 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 so the welcome page.

Solution:

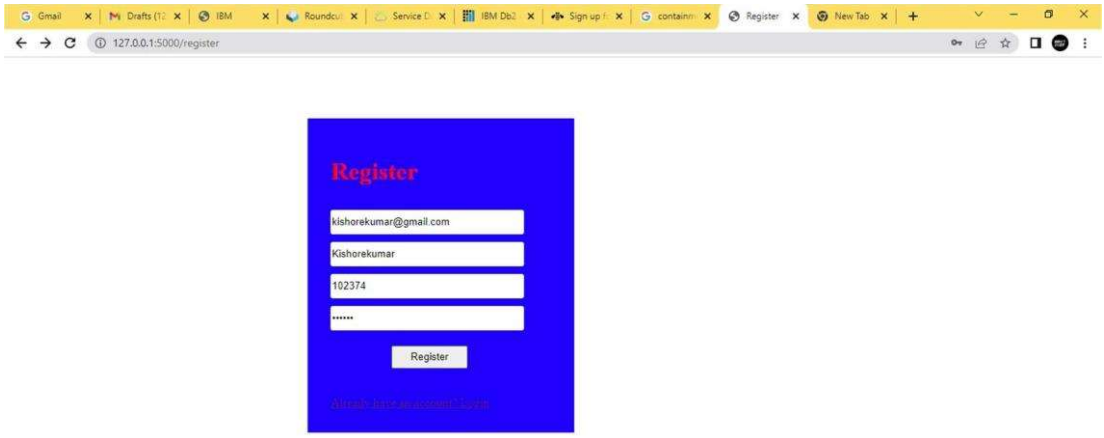
app.py

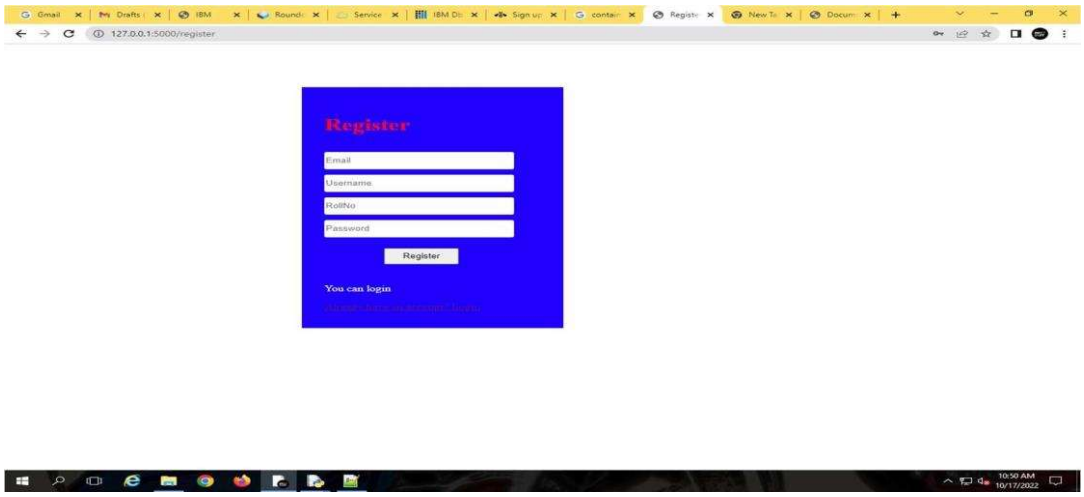
```
from flask import Flask, render_template, request, redirect, url_for, session

import ibm_db
import bcrypt
conn =
ibm_db.connect("DATABASE=bludb;HOSTNAME=;PORT=;SECURITY=SSL;SSLServerCertificate=DigiCertGlobalRootCA.crt;UID=;PWD=",'','')

# url_for('static', filename='style.css')

app = Flask(_name_)
app.secret_key = 'C21FGSBAPOK43K5VSIDFB2'

@app.route("/",methods=['GET'])
def home():
   if 'email' not in session:
     return redirect(url_for('login'))
   return render_template('home.html',name='Home')

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

```
def register():
  if request.method == 'POST':
    email = request.form['email']
    username = request.form['username']
    rollNo = request.form['rollNo']
    password = request.form['password']

    if not email or not username or not rollNo or not password:
      return render_template('register.html',error='Please fill all fields')

    hash=bcrypt.hashpw(password.encode('utf-8'),bcrypt.gensalt())

    query = "SELECT * FROM USER WHERE email=? OR rollNo=?"
    stmt = ibm_db.prepare(conn, query)
    ibm_db.bind_param(stmt,1,email)
    ibm_db.bind_param(stmt,2,rollNo)
    ibm_db.execute(stmt)
    isUser = ibm_db.fetch_assoc(stmt)

    if not isUser:
      insert_sql = "INSERT INTO User(username,email,PASSWORD,rollNo) VALUES (?,?,?,?)"
      prep_stmt = ibm_db.prepare(conn, insert_sql)
      ibm_db.bind_param(prep_stmt, 1, username)
      ibm_db.bind_param(prep_stmt, 2, email)
      ibm_db.bind_param(prep_stmt, 3, hash)
      ibm_db.bind_param(prep_stmt, 4, rollNo)
      ibm_db.execute(prep_stmt)
      return render_template('register.html',success="You can login")
    else:
      return render_template('register.html',error='Invalid Credentials')

  return render_template('register.html',name='Home')

@app.route("/login",methods=['GET','POST'])
def login():
    if request.method == 'POST':
      email = request.form['email']
      password = request.form['password']

      if not email or not password:
        return render_template('login.html',error='Please fill all fields')
      query = "SELECT * FROM USER WHERE email=?"
      stmt = ibm_db.prepare(conn, query)
      ibm_db.bind_param(stmt,1,email)
      ibm_db.execute(stmt)
      isUser = ibm_db.fetch_assoc(stmt)
      print(isUser,password)
```

```
    if not isUser:
      return render_template('login.html',error='Invalid  Credentials')

    isPasswordMatch  = bcrypt.checkpw(password.encode('utf-8'),isUser['PASSWORD'].encode('utf-8'))

    if not isPasswordMatch:
      return render_template('login.html',error='Invalid  Credentials')

    session['email']  = isUser['EMAIL']
    return redirect(url_for('home'))

  return render_template('login.html',name='Home')
@app.route('/logout')
def logout():
  session.pop('email', None)
  return redirect(url_for('login'))
```

OUTPUT:

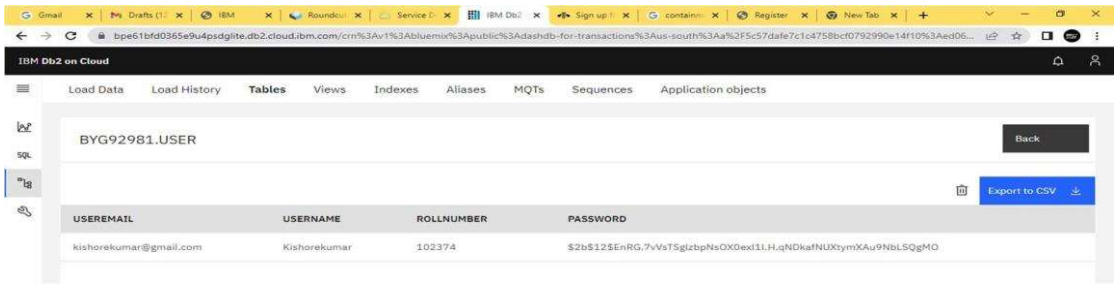



127.0.0.1:5000/register
Register
Email
Username
RollNo
Password
Register
You can login


127.0.0.1:5000/login
Login
kishorekumar@gmail.com
Login
Don't have an account? Register


WELCOME
You are logged in
Logout

Database:


IBM Db2 on Cloud
Load Data
Load History
Tables
Views
Indexes
Aliases
MQTs
Sequences
Application objects
BYG92981.USER
Back
Export to CSV
USEREMAIL
USERNAME
ROLLNUMBER
PASSWORD
kishorekumar@gmail.com
Kishorekumar
102374
$2b$12$EnRG.7vVsTSglzbpNsOX0exI1l.H.qNDkafNUXtymXAu9NbLSQgMO