Assignment -1

Python Programming

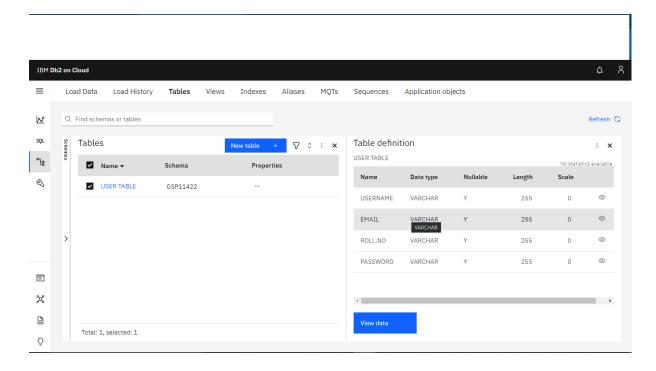
Assignment Date	27 September 2022
Student Name	A.Shanthini
Student Roll Number	421319104025
Maximum Marks	2 Marks

Question-1:

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

Solution:

Create table students



Question-2:

Perform UPDATE, DELETE queries with user table

Solution:

Insert into user values ("sathish",23,'sarkarsathish@gmail.com',"s@thish");

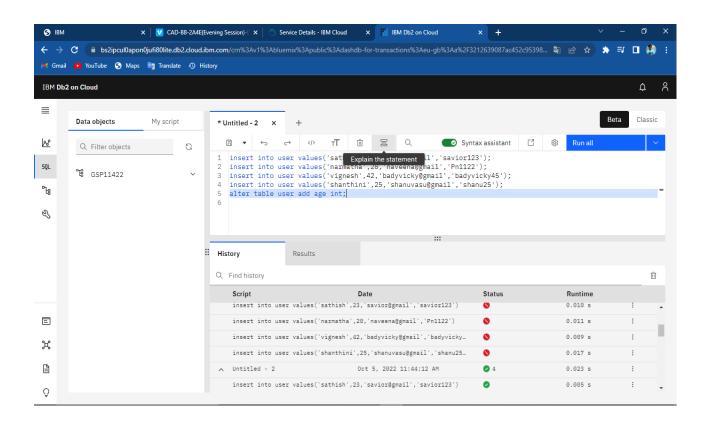
Insert into user values ("shanthini",25,'shanu@gmail.com',"shanu@cse");

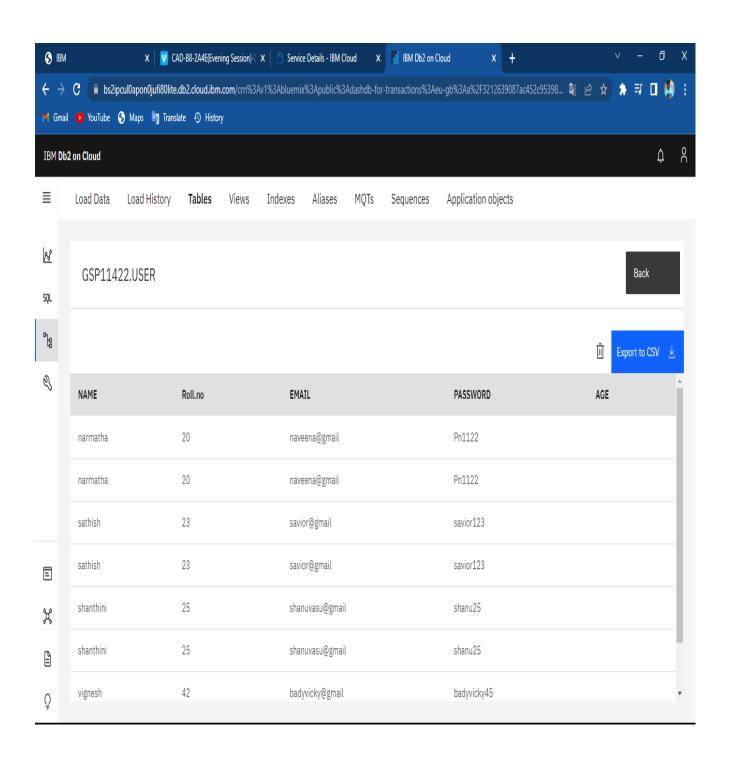
Insert into user values ("Narmatha",20,'narmatha@gmail.com',"narmu");

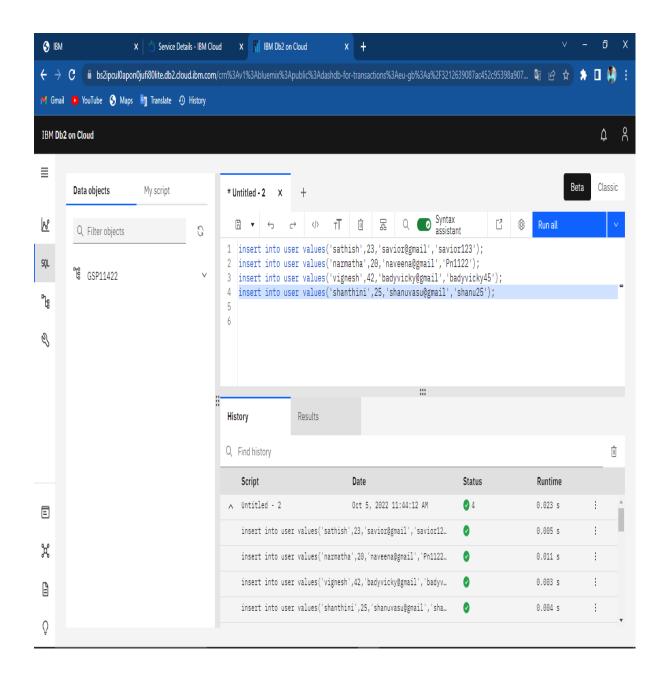
Insert into user values ("vignesh",37, 'vignesh@gmail.com',"vicky");

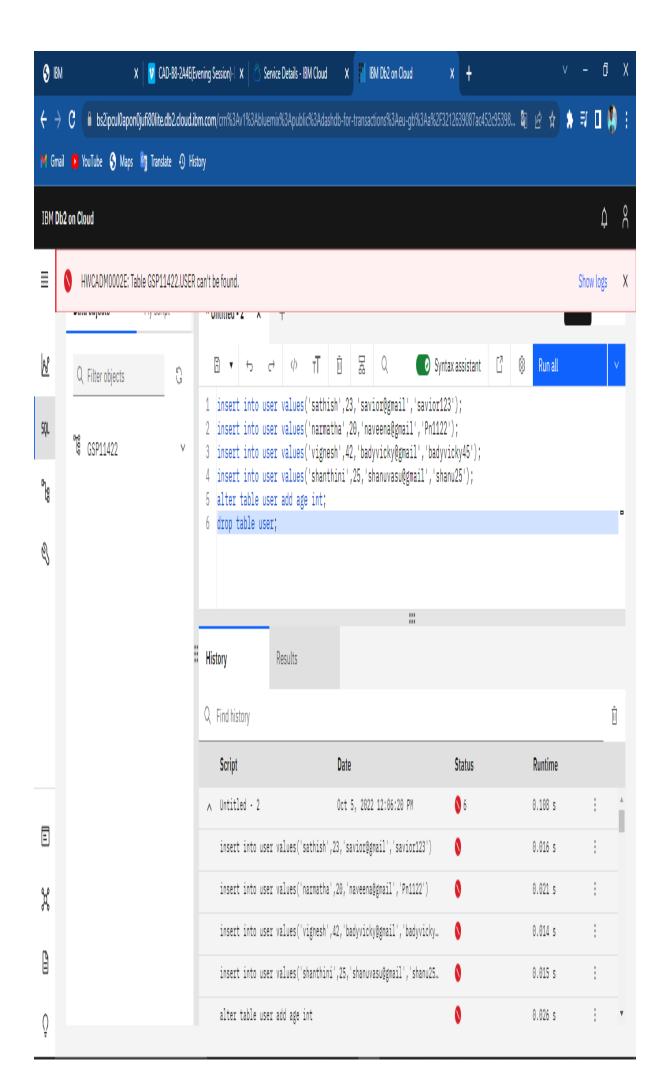
Alter table user add age int;

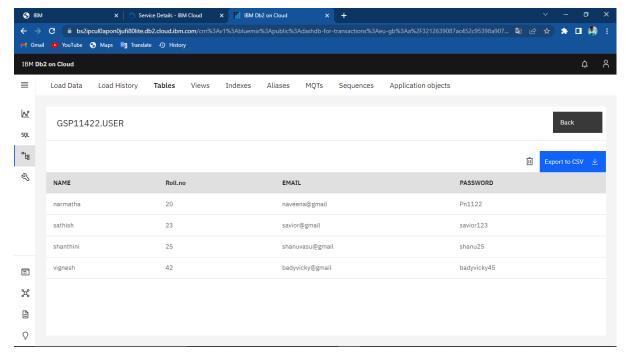
Drop table user;











Question-3:

Connect python code to db2

Solution:

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

import re

```
app = Flask(__name__)
app.scret_key = 'a'
conn =
ibm_db.conect("DATABASE=;HOSTNAME=;PORT=;SECURITY=SSL;SSL
ServerCertificate=;UID=;PhD=", ' ', ' ')
```

```
@app.route('/')
def home():
    return render_template('home.html')
```

```
@app.route('/Login', methods=['GET', 'POST'])
def login():
  global userid
  msg = ''
  if request.method == 'POST':
    username = request.form['username']
    password = request.form['password']
    return render_template('home.html')
    sql = "SELECT * FROM Users WHERE userame=? 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['Loggeddin'] = True
       session['id'] = account['username']
      userid = account['USERNAME']
      session['username'] = acccount['USERNAME']
    else:
      msg = 'Incorrect username/password'
       return render_template('login.html', msg=msg)
```

```
@app.route('/register', methods=['GET', 'POST'])
def register():
  if request.method == 'POST':
    username = request.form['username']
    email = request.form['email']
    password = request.form['password']
    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 = "Accont already exists!"
    elif not re.match(r'[^{\circ}@]+@[^{\circ}@]+\.[^{\circ}@]+', email):
       msg = "format does not match"
    elif not re.match(r'[A-Za-z0-9+', username):
       msg = "name must contain characters and numbers"
    else:
       insert_sql = "ISERT INTO users VALUES(?, ?, ?)"
       prep_stmt = ibm_db.prepare(conn.insert_sql)
       ibm_db.bind_param(prep_stmt, 1, username)
       ibm_db.bnd_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)
```

```
@app.route('/dashboard')
def dash():
  return render_template('dashboard.html')
@app.route('/apply', methods=['GET","POST'])
def app():
  msg = ''
  if request.method == "POST":
    username = request.form['username']
    email = request.form['email']
    qualification = request.form['qualification']
    skills = request.form['skills']
    jobs = request.form['s']
    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 = "there is only 1 job position"
       return render_template('apply.html', msg=msg)
    insert_sql = "INSERT INTO job 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, qualification)
    ibm_db.bind_param(prep_stmt, 4, skills)
    ibm_db.bind_param(prep_stmt, 5, jobs)
    ibm_db.execute(prep_stmt)
    msg = "You have successfully applie for job"
    session['Loggedin'] = True
    TEXT = "Hello user, a new application for job position" + job + isrequested
    elif request.method == "POST"
    msg = "Please fill out the form"
    return render_template('register.html', msg=msg)
@app.route('/display')
def display():
  print
  session["username"], session['id']
  cursor = mysql.connection.cursor()
  cursor.execute('SELECT*FROM job WHERE userid=%s', (sessio['id'],))
  account = cursor.fetchone()
  print("accountdisplay", account
```

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

Solution:

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

app.scret_key = 'a'

conn =

ibm_db.conect("DATABASE=bludb;HOSTNAME=21fecfd8 -47b7-4937-840d-

d791d0218660.bs2io90l08kqb1od8lcg.databases.appdomain.c loud;PORT=31864;SECURITY=SSL;SSLServerCertificate= DigiCertGlobalRootCA.crt;USERNAME=gsp11422;PASSW ORD=ixh307unZIzgLLB9", ' ', ' ')

```
@app.route('/')
def home():
  return render_template('home.html')
@app.route('/Login', methods=['GET', 'POST'])
def login():
  global userid
  msg = ''
  if request.method == 'POST':
    username = request.form['username']
    password = request.form['password']
    sql = "SELECT * FROM Users WHERE userame=?
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['Loggeddin'] = True
       session['id'] = account['username']
       userid = account['USERNAME']
       session['username'] = account['USERNAME']
       msg='Logged in successfully!'
    else:
       msg = 'Incorrect username/password'
       return render_template('login.html',msg=msg)
@app.route('/register', methods=['GET', 'POST'])
def register():
  if request.method == 'POST':
    username = request.form['username']
    email = request.form['email']
    password = request.form['password']
    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 address"
  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(prep_stmt, 1, username)
    ibm_db.bnd_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)
```

@app.route('/dashboard')

```
def dash():
  return render_template('dashboard.html')
@app.route('/apply', methods=['GET", "POST'])
def app():
  msg = ''
  if request.method == "POST":
    username = request.form['username']
    email = request.form['email']
    qualification = request.form['qualification']
     skills = request.form['skills']
    jobs = request.form['s']
     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 = "there is only 1 job position"
       return render_template('apply.html', msg=msg)
```

```
insert_sql = "INSERT INTO job 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, qualification)
     ibm_db.bind_param(prep_stmt, 4, skills)
     ibm_db.bind_param(prep_stmt, 5, jobs)
     ibm_db.execute(prep_stmt)
     msg = "You have successfully applie for job"
     session['Loggedin'] = True
     TEXT = "Hello user, a new application for job position +
job + is requested"
  elif request.method == "POST":
     msg = "Please fill out the form"
     return render_template('register.html', msg=msg)
@app.route('/display')
def display():
  print
```

```
session["username"], session['id']
  cursor = mysql.connection.cursor()
  cursor.execute('SELECT*FROM job WHERE userid=%s',
(session['id'],))
  account = cursor.fetchone()
  print("accountdisplay", account)
  return render_template('display.html',account=account)
@app.route('/logout')
def logout():
  session.pop('loggedin',None)
  session.pop('id',None)
  session.pop('username',None)
  return render_template('home.html')
if __name__== '__main___':
  app.run(host ='0.0.0.0')
```