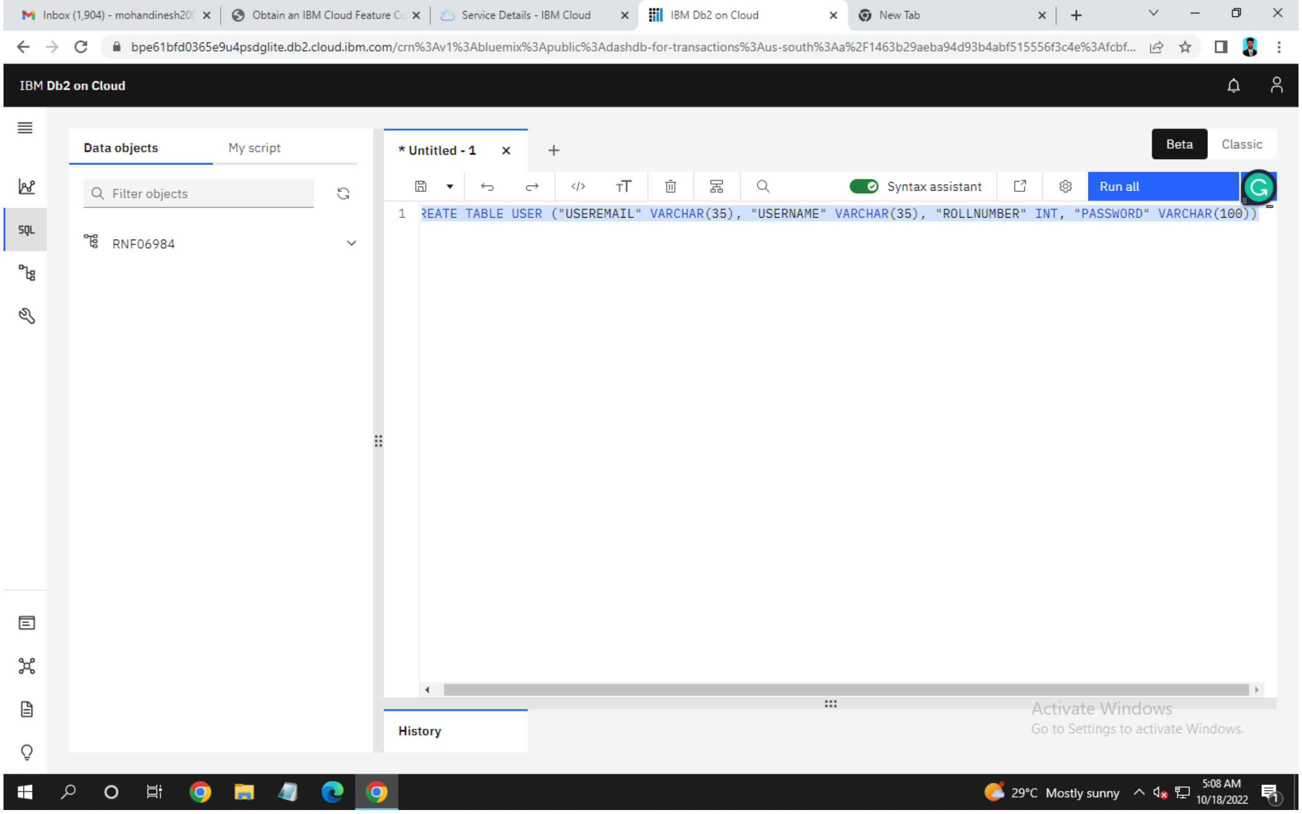
Assignment -2
Connect with Database Assignment

Assignment Date	09 October 2022
Student Name	GUNABHARATHI M.K
Student Roll Number	732919CSR029
Maximum Marks	2 Marks

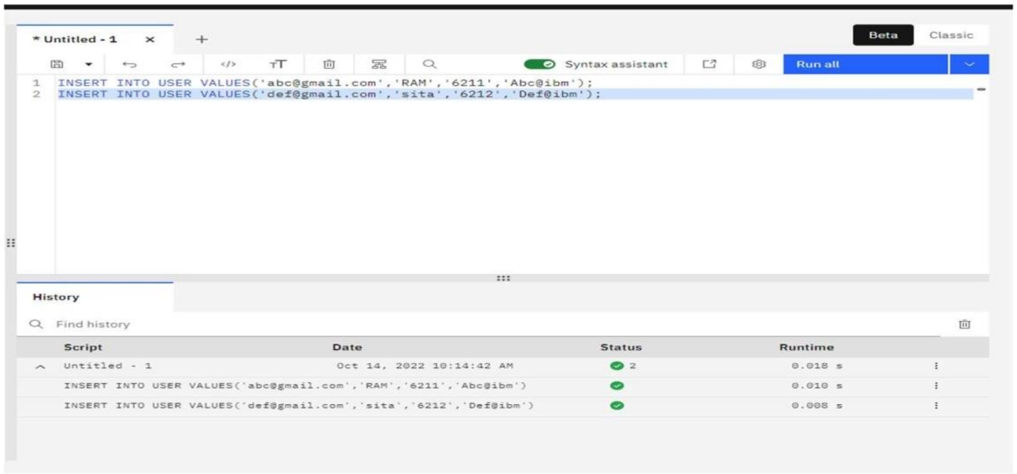
Question-1:

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


Inbox (1,904) - mohandinesh20
Obtain an IBM Cloud Feature C
Service Details - IBM Cloud
IBM Db2 on Cloud
New Tab
bpe61bfd0365e9u4psdglite.db2.cloud.ibm.com/crn%3Av1%3Abluemix%3Apublic%3Adashdb-for-transactions%3Aus-south%3Aa%2F1463b29aeba94d93b4abf515556f3c4e%3Afcbf...
IBM Db2 on Cloud
Data objects
My script
Filter objects
RNF06984
* Untitled - 1
Beta
Classic
Syntax assistant
Run all
History
Activate Windows
Go to Settings to activate Windows.
29°C Mostly sunny
5:08 AM
10/18/2022

```
REATE TABLE USER ("USEREMAIL" VARCHAR(35), "USERNAME" VARCHAR(35), "ROLLNUMBER" INT, "PASSWORD" VARCHAR(100))
```

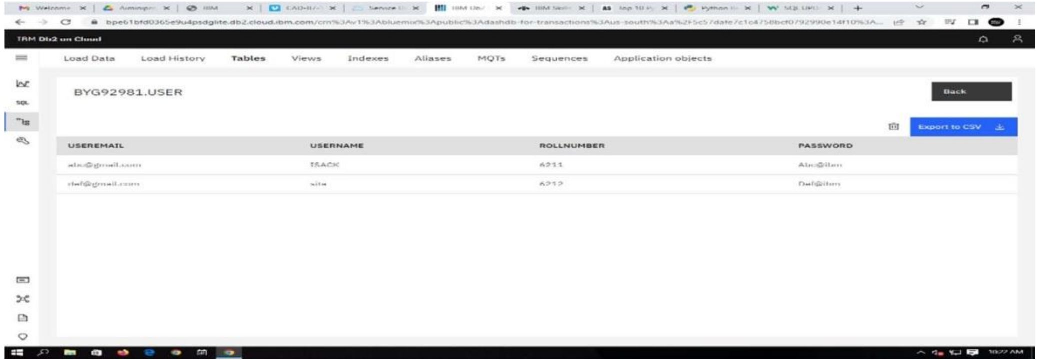
2. Perform UPDATE, DELETE Queries with User table



```
INSERT INTO USER VALUES('abc@gmail.com','RAM','6211','Abc@ibm');
INSERT INTO USER VALUES('def@gmail.com','sita','6212','Def@ibm');
```

Script	Date	Status	Runtime
Untitled - 1	Oct 14, 2022 10:14:42 AM	✓ 2	0.018 s
INSERT INTO USER VALUES('abc@gmail.com','RAM','6211','Abc@ibm')		✓	0.010 s
INSERT INTO USER VALUES('def@gmail.com','sita','6212','Def@ibm')		✓	0.008 s

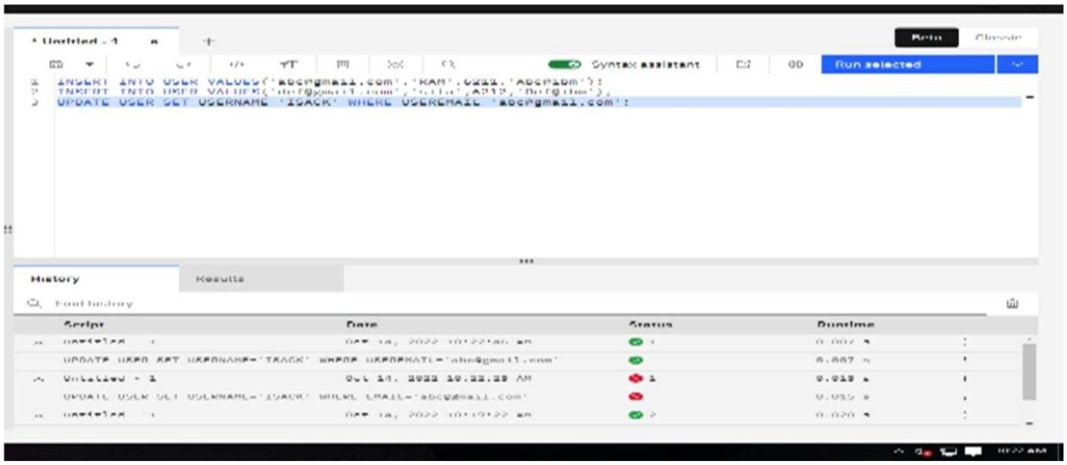
Table View:



BYG92981.USER

USEREMAIL	USERNAME	ROLLNUMBER	PASSWORD
abc@gmail.com	ISACK	6211	Abc@ibm
def@gmail.com	sita	6212	Def@ibm

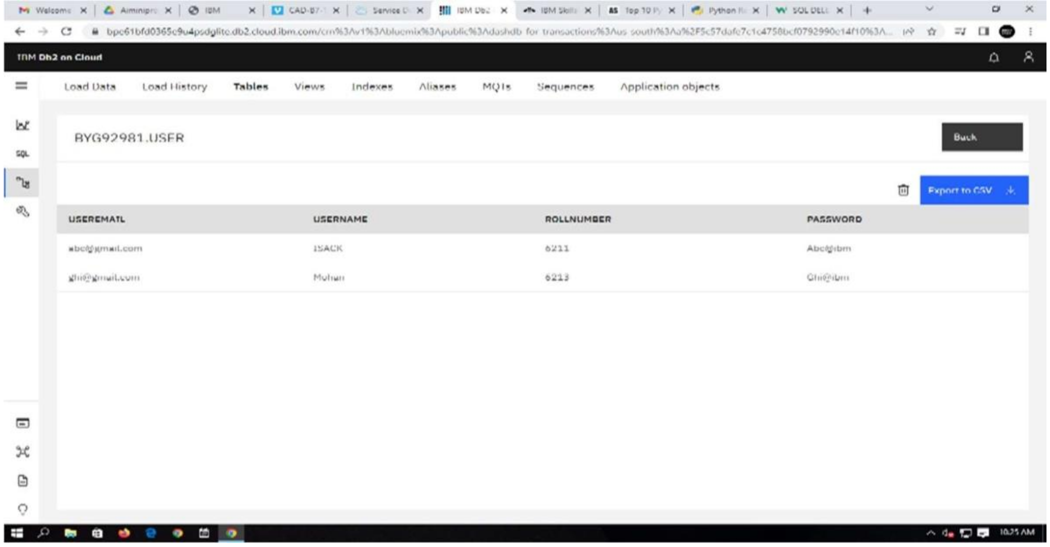
UPDATE:



```
INSERT INTO USER VALUES('abc@gmail.com','RAM',6211,'Abc@ibm');
INSERT INTO USER VALUES('def@gmail.com','sita',6212,'Def@ibm');
UPDATE USER SET USERNAME 'ISACK' WHERE USEREMAIL 'abc@gmail.com';
```

Script	Date	Status	Runtime
Untitled - 1	Oct 14, 2022 10:22:[illegible] am	✓ 1	0.007 s
UPDATE USER SET USERNAME='ISACK' WHERE USEREMAIL='abc@gmail.com'		✓	0.007 s
Untitled - 1	Oct 14, 2022 10:22:20 AM	✗ 1	0.019 s
UPDATE USER SET USERNAME='ISACK' WHERE EMAIL='abc@gmail.com'		✗	0.019 s
Untitled - 1	Oct 14, 2022 10:19:22 am	✓ 2	0.020 s

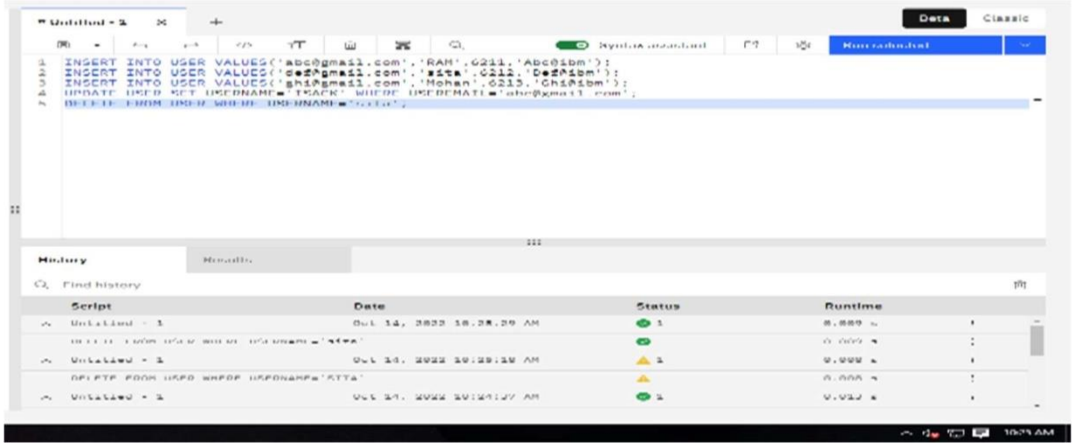
Table View:



BYG92981.USER

USEREMAIL	USERNAME	ROLLNUMBER	PASSWORD
abc@gmail.com	ISACK	6211	Abc@ibm
ghi@gmail.com	Mohan	6213	Ghi@ibm

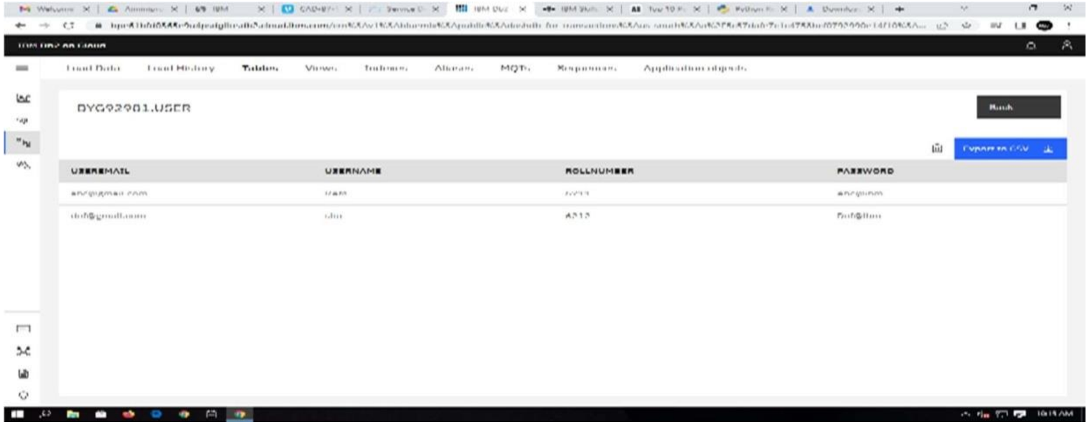
DELETE:



```
INSERT INTO USER VALUES('abc@gmail.com','RAM',6211,'Abc@ibm');
INSERT INTO USER VALUES('def@gmail.com','sita',6212,'Def@ibm');
INSERT INTO USER VALUES('ghi@gmail.com','Mohan',6213,'Ghi@ibm');
UPDATE USER SET USERNAME='JACK' WHERE USEREMAIL='abc@gmail.com';
DELETE FROM USER WHERE USERNAME='sita';
```

Script	Date	Status	Runtime
Untitled - 1	Oct 14, 2022 10:28:29 AM	1	0.009 s
DELETE FROM USER WHERE USERNAME='sita'			0.002 s
Untitled - 1	Oct 14, 2022 10:28:18 AM	1	0.000 s
DELETE FROM USER WHERE USERNAME='SITA'			0.000 s
Untitled - 1	Oct 14, 2022 10:24:27 AM	1	0.012 s

TABLE View:



DYG92981.USER

USEREMAIL	USERNAME	ROLLNUMBER	PASSWORD
abc@gmail.com	Ram	6211	abc@ibm
ghi@gmail.com	ghi	6213	Ghi@ibm

3. Connect python with db2.

Solution:

```
import ibm_db conn = ibm_db.connect("DATABASE=bludb;HOSTNAME=6667d8e9-9d4d-4ccb-ba32-21d
a3bb5aafc.c1ogj3sd0tgtu0lqde00.databases.appdomain.cloud;PORT=30376;SECURITY=SSL;SS
LS erverCertificate=DigiCertGl obalRootCA.crt;PROTOCOL=TCPIP;UID= rnf06984
;PWD=" VWqiPBgxELVtAn32
",",")
```

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.

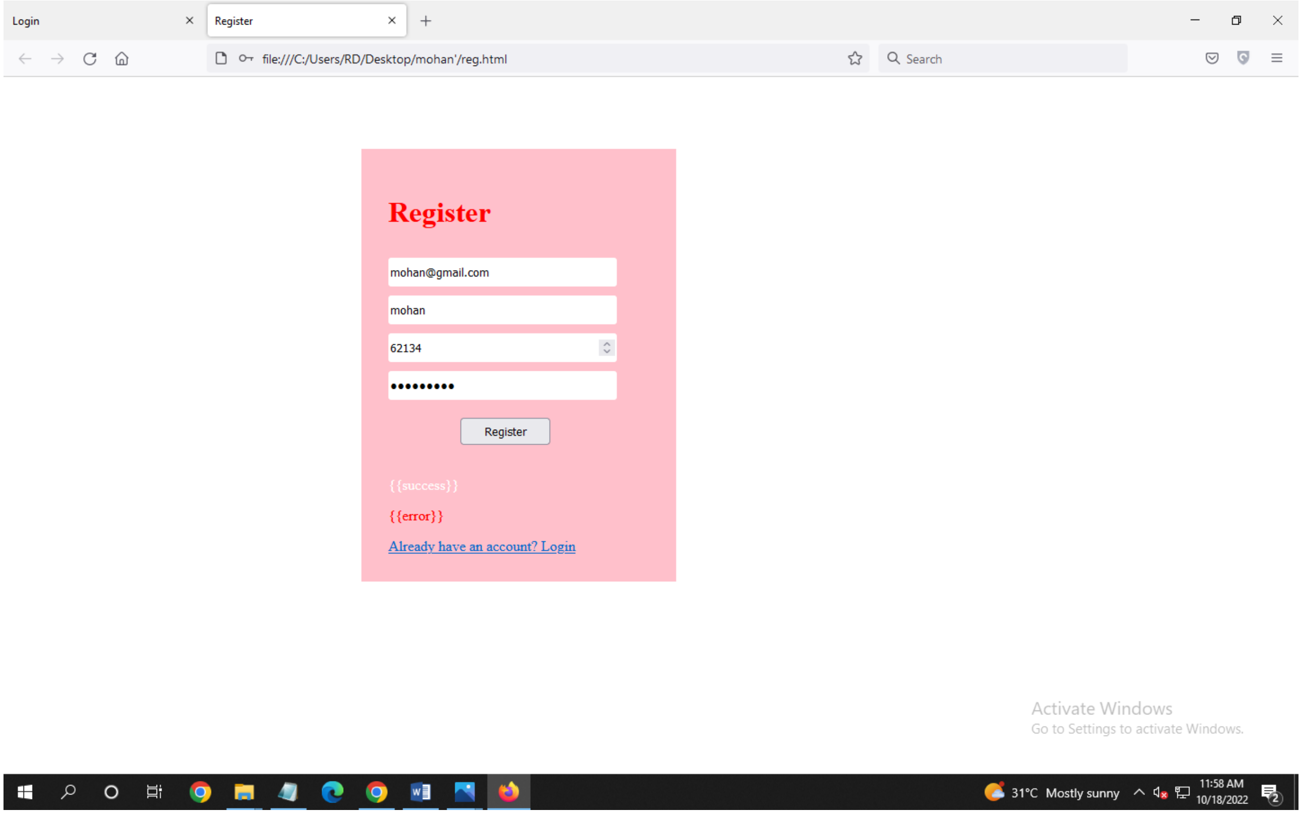
Solution:

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;SSLServerCertific

ate=DigiCer tGlobalRootCA.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:


Login
Register
file:///C:/Users/RD/Desktop/mohan'/reg.html
Search
Activate Windows
Go to Settings to activate Windows.
31°C Mostly sunny
11:58 AM
10/18/2022

Register

mohan@gmail.com

mohan

62134

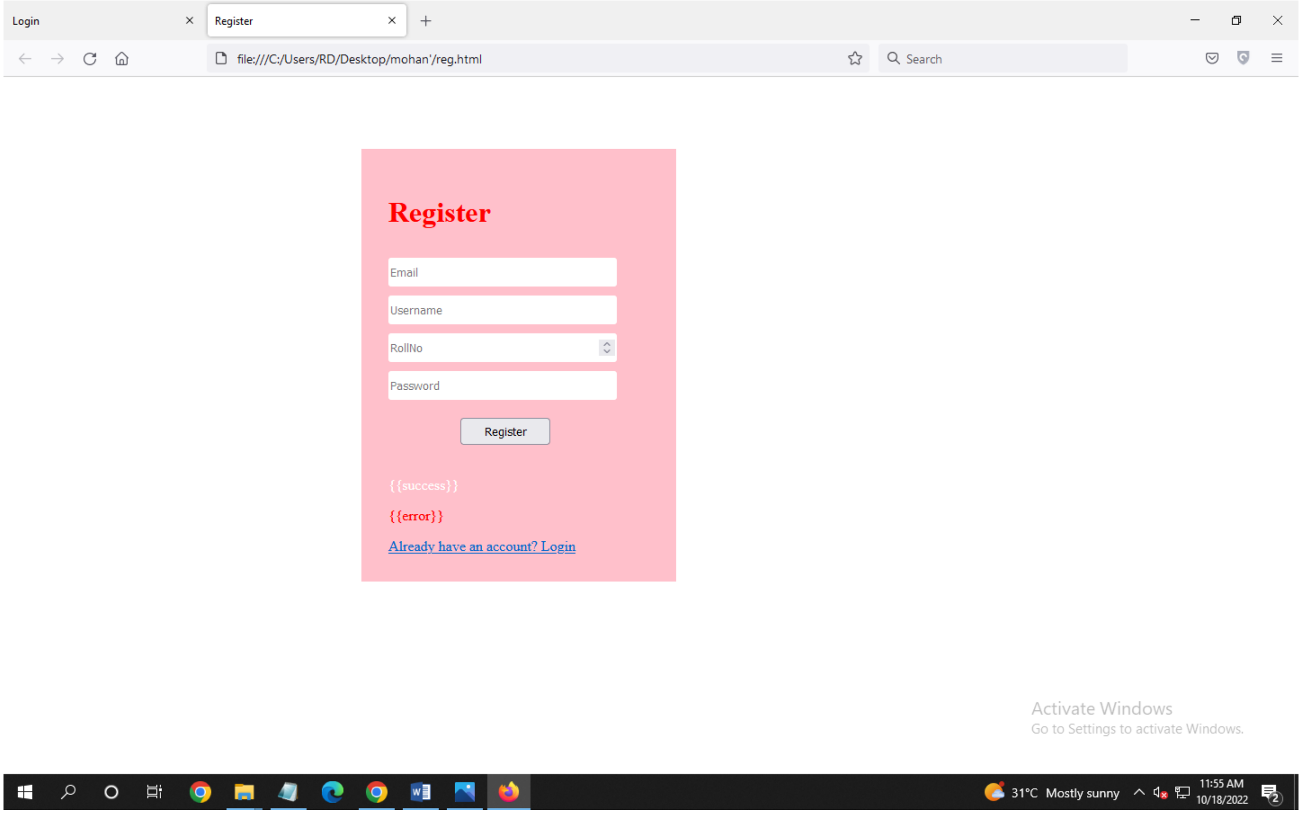
•••••••••

Register

{{success}}

{{error}}

Already have an account? Login


Login
Register
file:///C:/Users/RD/Desktop/mohan'/reg.html
Search
Activate Windows
Go to Settings to activate Windows.
31°C Mostly sunny
11:55 AM
10/18/2022

Register

Email

Username

RollNo

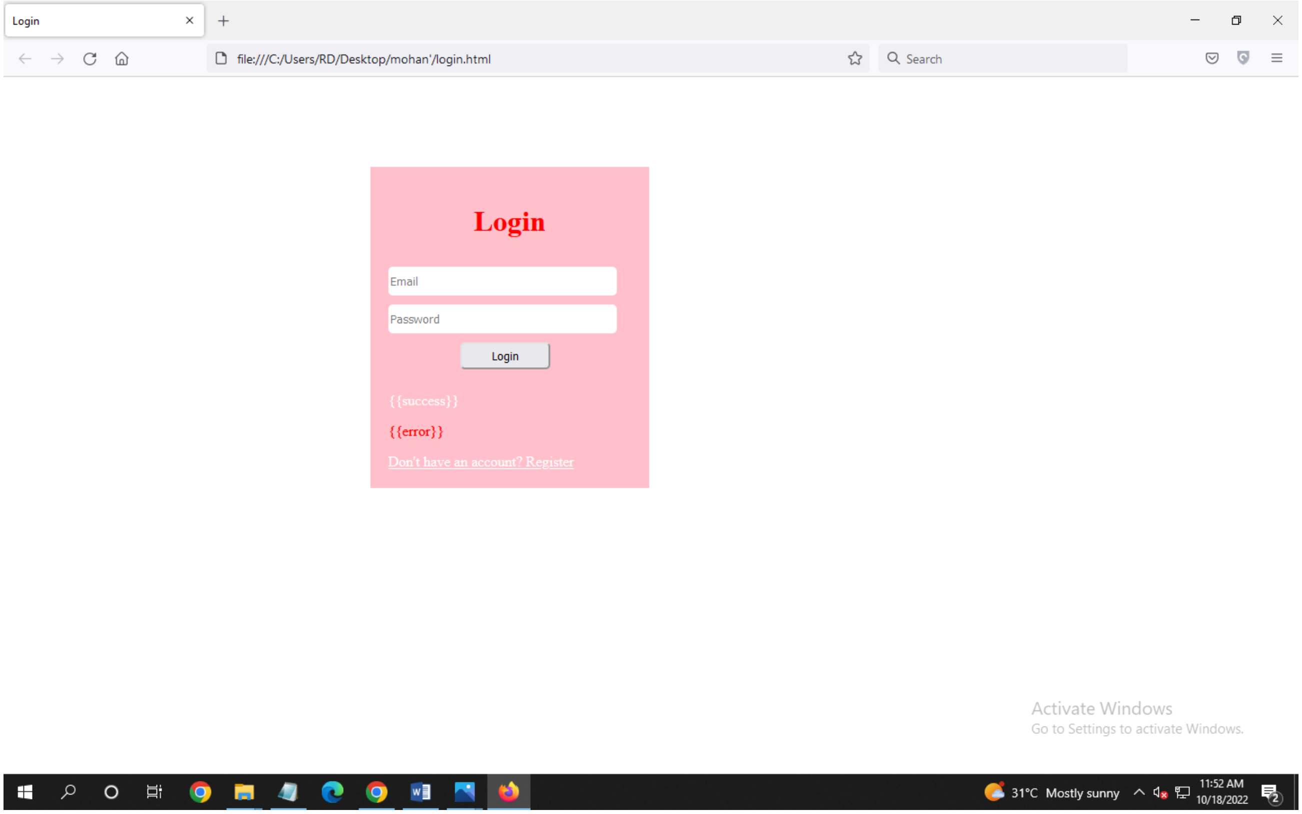
Password

Register

{{success}}

{{error}}

Already have an account? Login


Login
file:///C:/Users/RD/Desktop/mohan'/login.html
Search
Activate Windows
Go to Settings to activate Windows.
31°C Mostly sunny
11:52 AM
10/18/2022

Login

Email

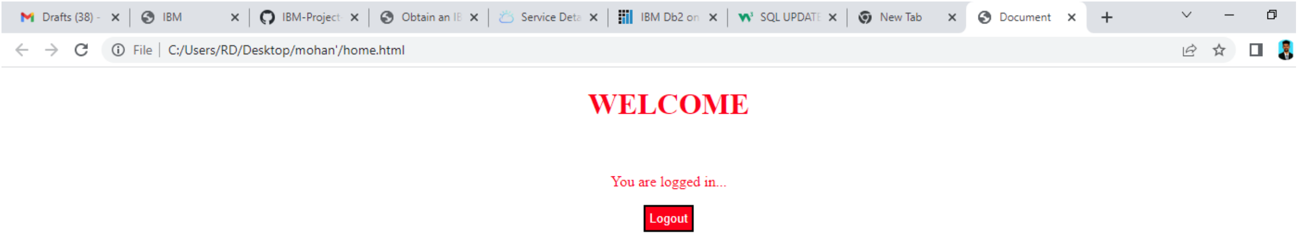
Password

Login

{{success}}

{{error}}

Don't have an account? Register

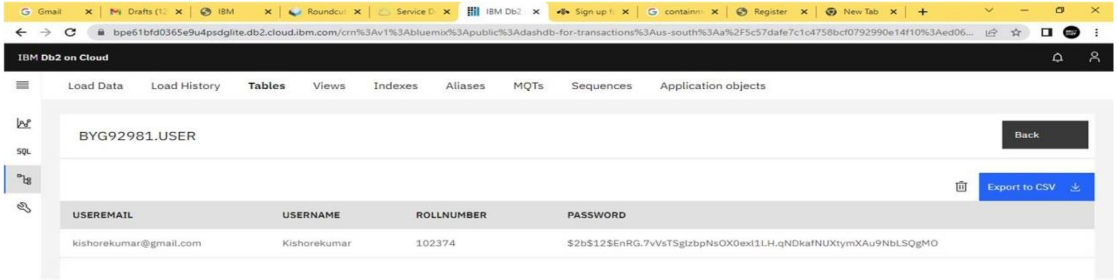


WELCOME

You are logged in...

Logout

Database:



BYG92981.USER

USEREMAIL	USERNAME	ROLLNUMBER	PASSWORD
kishorekumar@gmail.com	Kishorekumar	102374	$2b$12$EnRG.7vVsTSglzbpNsOX0exl1I.H.qNDkafNUXtymXAu9NbLSQgMO