Assignment 2

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

2. Perform UPDATE, DELETE Queries with user table

3. Connect python code to db2.
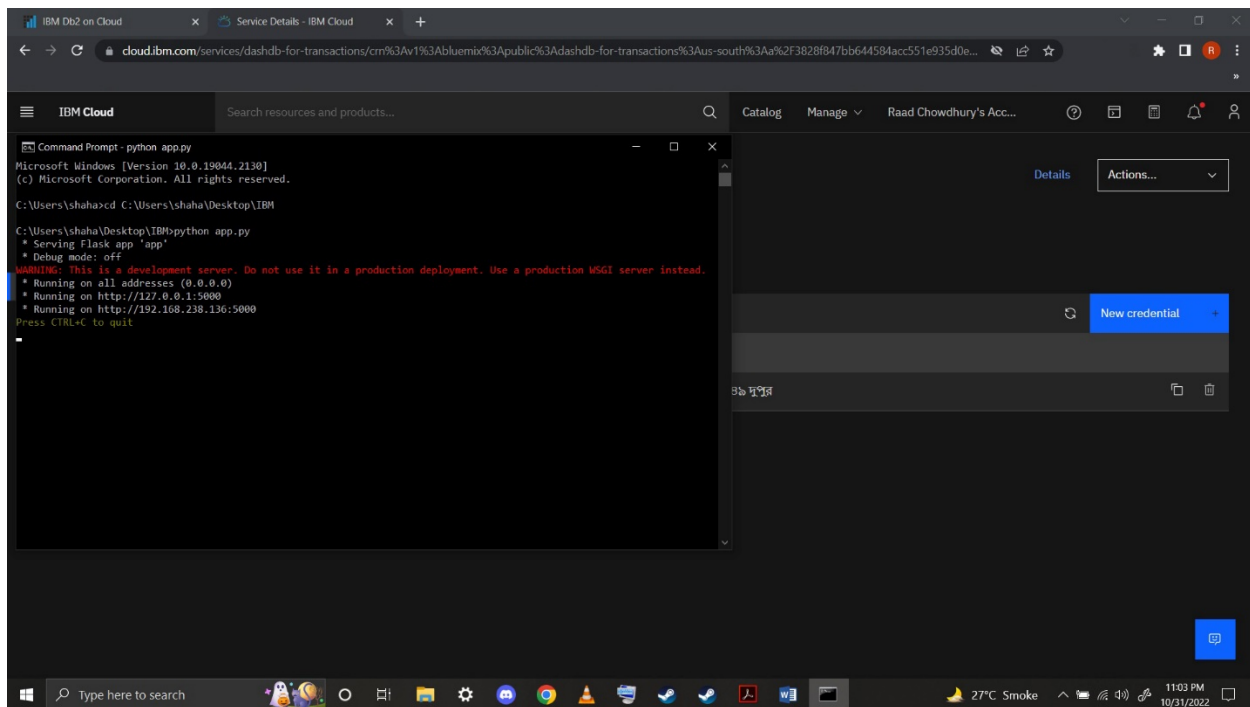
Now, we create a flask app with a user registration page, login page and welcome page. The session will be loaded by default once the user enters all the fields, store the data in database and navigate to login page. Authenticate username and password, if the user is valid display the welcome page.

App.py

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

import ibm_db

import re


app=Flask(__name__)

app.secret_key='a'

conn=ibm_db.connect("DATABASE=bludb;HOSTNAME=b0aebb68-94fa-46ec-a1fc-1c999edb6187.c3n41cmd0nqnrk39u98g.databases.appdomain.cloud;PORT=31249;Security=SSL;SSLServerCertificate=DigiCertGlobalRootCA.crt;UID=png88761;PWD=AC1oVSvpuOCxiNjr;","","")


@app.route('/')

@app.route('/login',methods=['GET','POST'])

def login():

    global userid;

    msg=" "


    if request.method == 'POST' and 'username' in request.form and 'password' in request.form:

        username=request.form['username']

        password=request.form['password']

        sql="SELECT * FROM users WHERE username=? AND password=?"

        stmt=ibm_db.prepare(conn,sql)

        ibm_db.bind_param(stmt,1,username)

        ibm_db.bind_param(stmt,2,password)
```

```python
        ibm_db.execute(stmt)

        account=ibm_db.fetch_assoc(stmt)

        print(account)

        if account:

            session['Loggedin']=True

            session['id']=account['USERNAME']

            userid=account['USERNAME']

            session['username']=account['USERNAME']

            msg="Logged in successfully!"

            return render_template("index.html", msg=msg)

        else :

            msg="Incorrect username and password"


    return render_template("login.html", msg=msg)


@app.route('/logout')

def logout():

    session.pop('loggedin', None)

    session.pop('id', None)

    session.pop('username', None)

    return redirect(url_for('login'))


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

def register():

    msg=""

    if request.method == 'POST' and 'username' in request.form and 'password' in request.form
and 'email' in request.form :
```

```python
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 = 'Username must contain only characters and numbers !'

elif not username or not password or not email:

    msg = 'Please fill out the form !'

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.bind_param(prep_stmt,2,email)

    ibm_db.bind_param(prep_stmt,3,password)

    ibm_db.execute(prep_stmt)

    msg="You have successfully logged in!"


elif request.method=="POST":
```

```
        msg="Please fill out the form"

    return render_template('register.html', msg=msg)


if __name__=="__main__":

    app.run(host='0.0.0.0')
```

Directory: static

Style.css

```css
.header{

        padding: 5px 120px;

        background-color: rgb(254, 254, 254);

        opacity: 0.6;

        border-radius: 10px;

}
.border{

        padding: 80px 50px;

        width: 400px;

        height: 450px;

        border: 1px solid #ffffff;

        border-radius: 2px;

        background-color: #e5ccf4;

        backdrop-filter: blur (10px);


}


.btn {

        padding: 10px 40px;

        background-color: #fcfae2;
```

```css
        color: #26192b;

        font-style: oblique;

        font-weight: bold;

        opacity: 0.6;

        border-radius: 10px;

}


.textbox{

        padding: 10px 40px;

        background-color: #b92c96;

        text-color: #FFFFFF;

        border-radius: 10px;

}


::placeholder {

        color: #FFFFFF;

        opacity: 0.5;

        font-style: oblique;

        font-weight: bold;

}


.word{

        color: #0c0101;

        font-style: oblique;

        font-weight: bold;

}
```

```css
.bottom{

        color: #010100;

        font-style: oblique;

        font-weight: bold;

}


body{

        background-image: linear-gradient(120deg, #F6EA41, #F048C6);

        color: #fff;

}
```

Directory: Templates

Login.html

```html
<html>

    <head>

            <meta charset="UTF-8">

            <title> Login </title>

            <link rel="stylesheet" href="{{ url_for('static', filename='style.css') }}">

    </head>

    <body></br></br></br></br></br>

            <div align="center">

            <div align="center" class="border">

                    <div class="header">

                            <h1 class="word">Login</h1>

                    </div></br></br></br>

                    <h2 class="word">

                            <form action="{{ url_for('login') }}" method="post">

                            <div class="msg">{{ msg }}</div>

                                    <input id="username" name="username" type="text"
placeholder="Username" class="textbox"/></br></br>
```

```html
                                    <input id="password" name="password" type="password"
placeholder="Password" class="textbox"/></br></br></br>

                                    <input type="submit" class="btn" value="Sign In"></br></br>

                        </form>

                </h2>

                    <p class="bottom">Don't have an account? <a class="bottom"
href="{{url_for('register')}}"> Sign Up here</a></p>

            </div>

            </div>

            <div class="background-image"></div>

        </body>

</html>
```

index.html

```html
<html>

    <head>

            <meta charset="UTF-8">

            <title> Index </title>

            <link rel="stylesheet" href="{{ url_for('static', filename='style.css') }}">


    </head>

    <body style="background-color:powderblue;"></br></br></br></br></br>

            <div align="center">

            <div align="center" class="border">

                    <div class="header">

                            <h1 class="word">Index</h1>

                    </div></br></br></br>

                            <h1 class="bottom">

                                    Hi {{session.username}}!!</br></br> Welcome to the index
page...

                            </h1></br></br></br>

                            <a href="{{ url_for('logout') }}" class="btn">Logout</a>
```

```
                    </div>

                    </div>

            </body>

</html>
```

register.html

```
<html>

        <head>

                <meta charset="UTF-8">

                <title> Register </title>

                <link rel="stylesheet" href="{{ url_for('static', filename='style.css') }}">

        </head>

        <body></br></br></br></br></br>

                <div align="center">

                <div align="center" class="border">

                        <div class="header">

                                <h1 class="word">Register</h1>

                        </div></br></br></br>

                        <h2 class="word">

                                <form action="{{ url_for('register') }}" method="post">

                                <div class="msg">{{ msg }}</div>

                                        <input id="username" name="username" type="text"
placeholder="Enter Your Username" class="textbox"/></br></br>

                                        <input id="password" name="password" type="password"
placeholder="Enter Your Password" class="textbox"/></br></br>

                                        <input id="email" name="email" type="text"
placeholder="Enter Your Email ID" class="textbox"/></br></br>

                                        <input type="submit" class="btn" value="Sign Up"></br>

                                </form>

                        </h2>

                        <p class="bottom">Already have an account? <a class="bottom"
href="{{url_for('login')}}"> Sign In here</a></p>
```
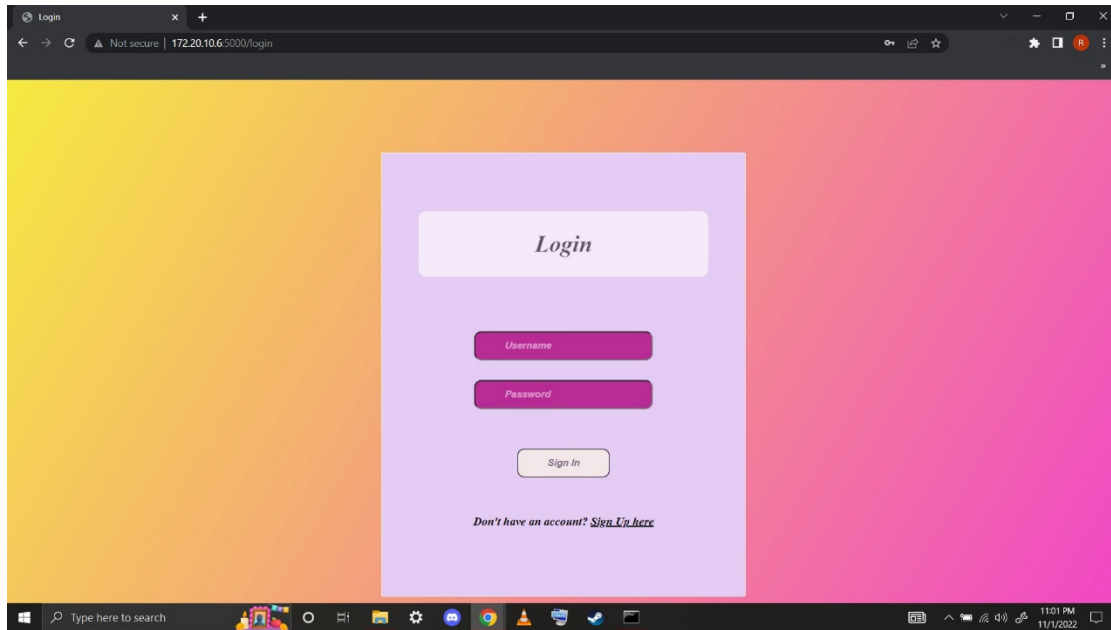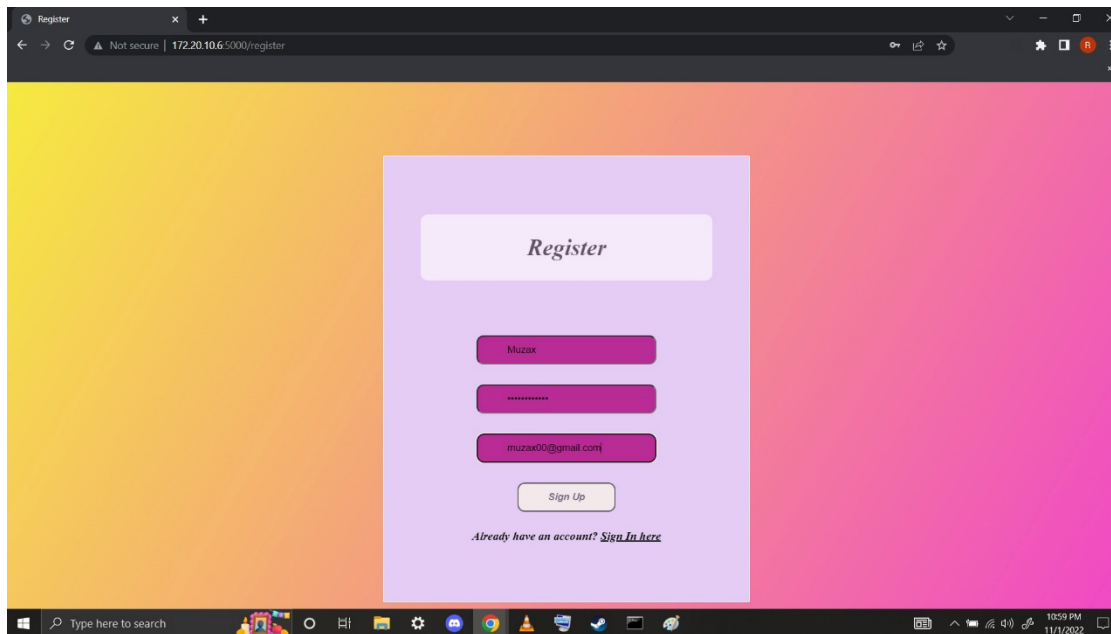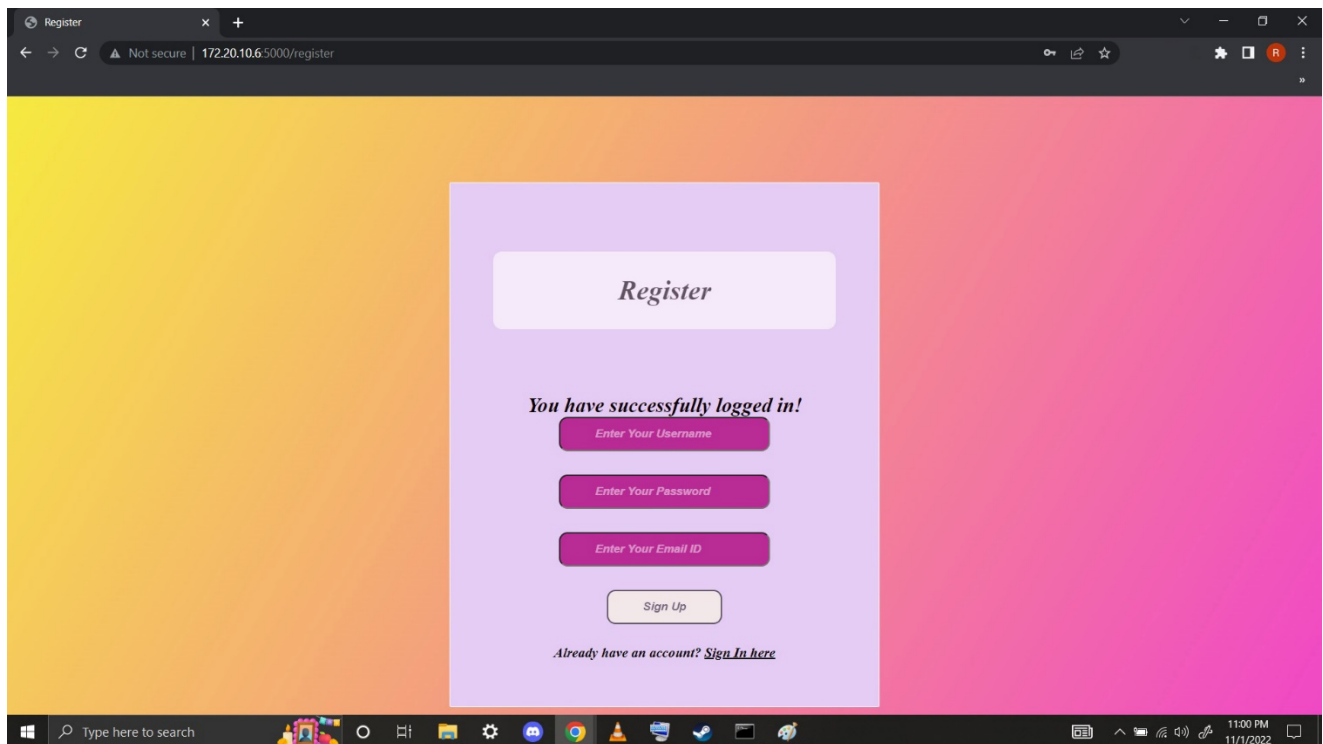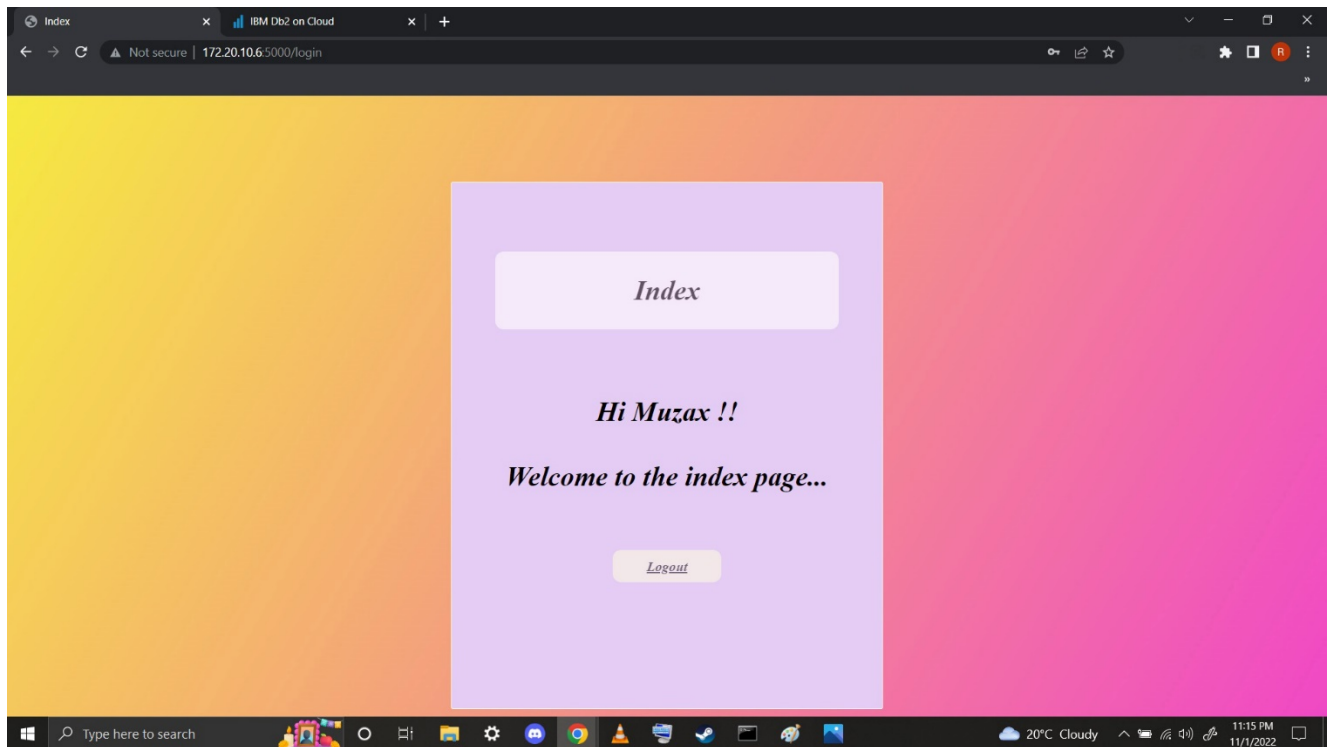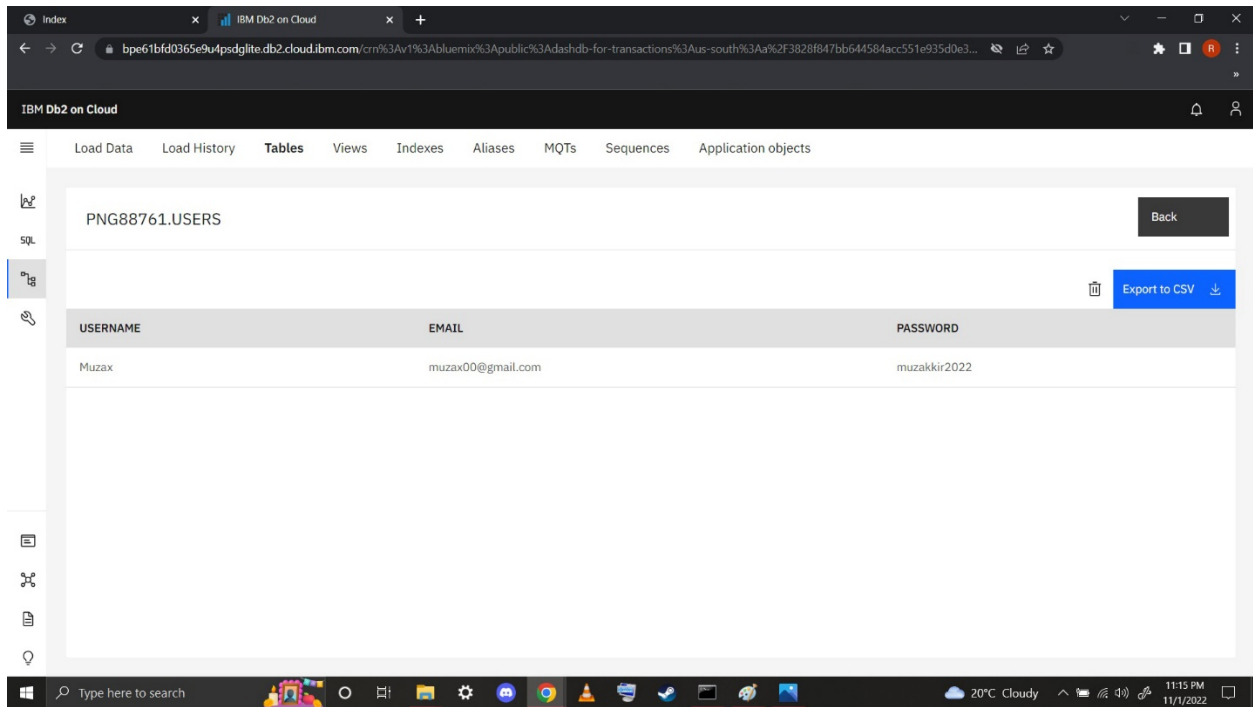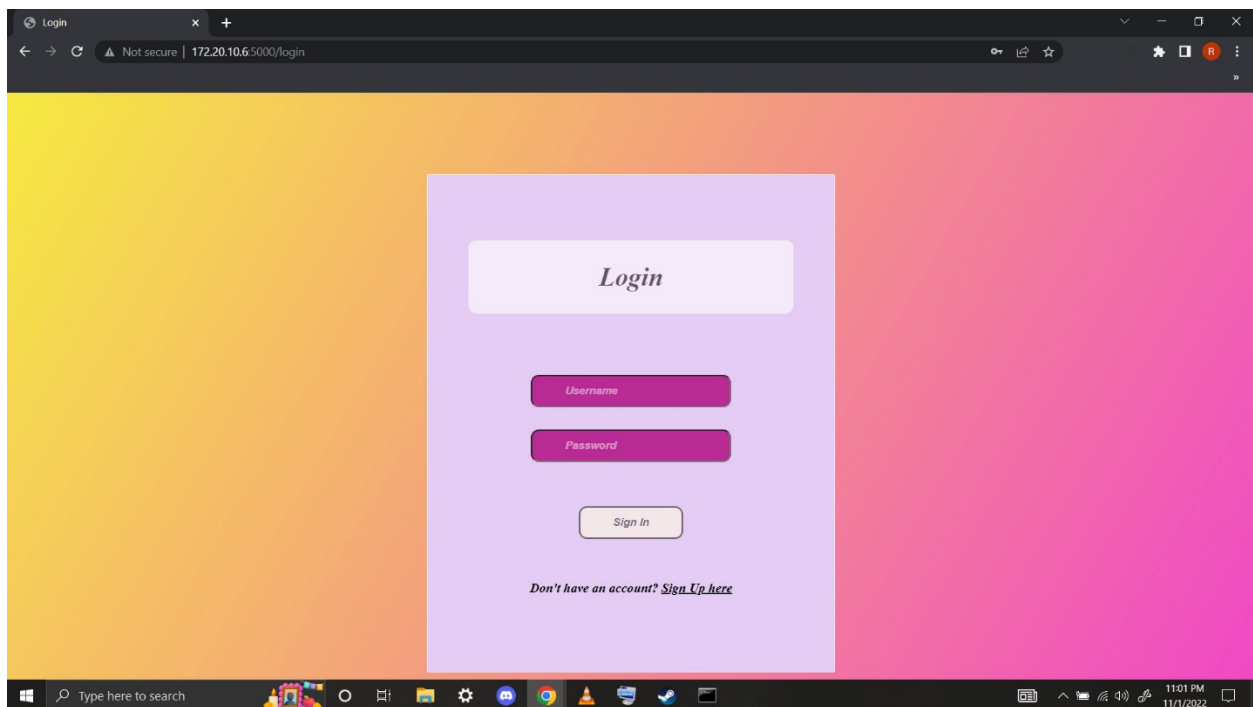
</div>

                              </div>

                        </body>

</html>

Output

1.Login

2. Registration

3. Welcome Page

4. Database Entry

5. Logout