Assignment -2 Flask Application And Database

Student Name	Crosswin Kirubakaran D
Student Roll Number	910019106008
Maximum Marks	2 Marks

Question

- 1. Create Flask app
- 2. Add the Homepage, about page
- 3. Add the bootstrap
- 4. Add the sign in and add the Signup page with database connectivity
- 5. Use ibm-db2 as database

Solution:

Flask Program

```
from flask import Flask, render_template,request,redirect,url_for,session
import ibm_db
conn = ibm_db.connect("DATABASE=bludb;HOSTNAME=2d46b6b4-cbf6-40eb-bbce-
6251e6ba0300.bs2io90l08kqb1od8lcg.databases.appdomain.cloud;PORT=32328;SECURITY=SSL;SSLServer
Certificate=DigiCertGlobalRootCA.crt;UID=xvy82040;PWD=4F0vfOOKWVwTaDqA",",")
app = Flask(__name__)
app.secret_key = b'_5#y2L"F4Q8z\n\xec]/'
@app.route('/',methods=['GET', 'POST'])
def Register():
  session['msg']=""
  if request.method == 'POST':
    name = request.form['name']
    email = request.form['email']
    password = request.form['newpassword']
    sql = "SELECT * FROM Users WHERE email =?"
    stmt = ibm_db.prepare(conn, sql)
    ibm_db.bind_param(stmt,1,email)
    ibm_db.execute(stmt)
    account = ibm_db.fetch_assoc(stmt)
    if account:
      session['msg']= 'Account already exists'
```

return redirect(url_for("login"))

```
else:
      insert_sql = "INSERT INTO Users VALUES (?,?,?)"
      prep stmt = ibm db.prepare(conn, insert sql)
      ibm_db.bind_param(prep_stmt, 1, name)
      ibm_db.bind_param(prep_stmt, 2, email)
      ibm_db.bind_param(prep_stmt, 3, password)
      ibm_db.execute(prep_stmt)
      session['msg']= 'New account created Login'
      return redirect(url_for("login"))
  return render_template('signup.html')
@app.route('/login',methods=['GET', 'POST'])
def login():
  if request.method == 'POST':
    email = request.form['email']
    password = request.form['newpassword']
    sql = "SELECT * FROM Users WHERE Email =?"
    stmt = ibm_db.prepare(conn, sql)
    ibm_db.bind_param(stmt,1,email)
    ibm_db.execute(stmt)
    account = ibm_db.fetch_both(stmt)
    accounts=account
    if (account):
      if (password == accounts['PASSWORD']):
        return render_template('Welcome.html',name=account['NAME'])
      else:
        return render_template('signin.html',msg='wrong Password')
    else:
      return render_template('signin.html',msg='wrong credentials')
  else:
    return render_template('signin.html',msg=session['msg'])
```

```
@app.route('/about')
       def about():
         return render template('about.html')
       @app.route('/home')
       def home():
         return render_template('home.html')
Templates/base.html
<!doctype html>
       <html lang="en">
        <head>
         <meta charset="utf-8">
         <meta name="viewport" content="width=device-width, initial-scale=1">
         k href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.1/dist/css/bootstrap.min.css" rel="stylesheet"
       integrity="sha384-iYQeCzEYFbKjA/T2uDLTpkwGzCiq6soy8tYaI1GyVh/UjpbCx/TYkiZhlZB6+fzT"
       crossorigin="anonymous">
             bootstrap 5-->
         {% block head %} {% endblock %}
        </head>
        <body>
           <nav class="navbar navbar-expand-lg navbar-light bg-light">
             <div class="container-fluid">
               <a class="navbar-brand" href="/home">Navigation</a>
                  <button
                  class="navbar-toggler"
                  type="button"
                  data-mdb-toggle="collapse"
                  data-mdb-target="#navbarNav"
                  aria-controls="navbarNav"
                  aria-expanded="false"
                  aria-label="Toggle navigation"
                  <i class="fas fa-bars">Menu</i>
                  </button>
                  <div class="collapse navbar-collapse" id="navbarNav">
                  class="nav-item">
                    <a class="nav-link active" href="{{url_for('home')}}">Home</a>
                    class="nav-item">
                    <a class="nav-link" href="{{url_for('Register')}}">Register</a>
                    class="nav-item">
```

```
<a class="nav-link" href="{{url_for('login')}}">Login</a>
                    class="nav-item">
                    <a class="nav-link" href="{{url_for('about')}}">About</a
                    >
                   </div>
             </div>
          </nav>
       {% block body %} {% endblock %}
       <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.1/dist/js/bootstrap.bundle.min.js"</pre>
       integrity="sha384-u1OknCvxWvY5kfmNBILK2hRnQC3Pr17a+RTT6rlHI7NnikvbZlHgTPOOmMi466C8"
       crossorigin="anonymous"></script>
</body>
Home.html
       {% extends 'base.html' %}
       {% block head %}
       <title>Home</title>
       {% endblock %}
       {% block body %}
       <div class='container'>
       <h1>HOMEPAGE</h1>
```

Navigation Home Register Login About

Welcome to Flask app!

HOMEPAGE

Welcome to Flask app!

</div>

{% endblock %}

Signin.html

```
{% extends 'base.html' %}
       {% block head %}
        <title>Login</title>
        {% endblock %}
        {% block body %}
          <div class='container'>
          <div class="registration-form" >
          <h1>Login</h1>
          <h2>{{msg}}</h2>
          <form name="form_login" action="/login" method="POST">
            <div><label for="input_registration_email" class="form-label">Email</label>
            <input type="text" name="email" class="form-control" id="input_registration_email"</pre>
        maxlength="50" placeholder="@"></div>
            <div><label for="input_registration_newpassword" class="form-label">Password</label>
            <input type="password" name="newpassword" class="form-control"
       id="input_registration_newpassword" maxlength="30" >
            </div>
            <button type="submit" class="btn_general btn_blue mt-2" id="button_registration_submit">Sign
        In</button>
          </form>
          </div>
          </div>
{% endblock %}
Navigation Home Register Login About
      Login
      Email
       @
      Password
      Sign In
```

Signup.html

```
{% extends 'base.html' %}
       {% block head %}
       <title>Registration</title>
       {% endblock %}
       {% block body %}
          <div class='container'>
          <div class="registration-form" >
          <h1>Registration Form</h1>
          <form name="form login" action='/' method="post">
            <div><label for="input_registration_name" class="form-label">Name</label>
            <input type="text" name="name" class="form-control" id="input_registration_name"
       maxlength="50"></div>
            <div><label for="input_registration_email" class="form-label">Email</label>
            <input type="email" name="email" class="form-control" id="input_registration_email"
       maxlength="50" placeholder="@"></div>
            <div><label for="input_registration_newpassword" class="form-label">New Password</label>
            <input type="password" name="newpassword" class="form-control"
       id="input_registration_newpassword" maxlength="30" placeholder="*****">
            </div>
            <button type="submit" class="btn btn-primary" id="button_registration_susbmit">Sign up</button>
          </form>
          </div>
          </div>
{% endblock %}
Navigation Home Register Login About
      Registration Form
      Name
      Email
      New Password
       *****
       Sign up
```

Welcome.html

```
{% extends 'base.html' %}
{% block head %}
<title>Welcome</title>
{% endblock %}

{% block body %}
<h1 class="display-1">Welcome to the portal {{name}} You have logged in</h1>
{% endblock %}
```

About.html

```
{% extends 'base.html' %}

{% block head %}

<title>About</title>
{% endblock %}

{% block body %}

<div class='container'>

<h1>About</h1>
This is the second assingment for Cloud application Development
</div>
{% endblock %}
```

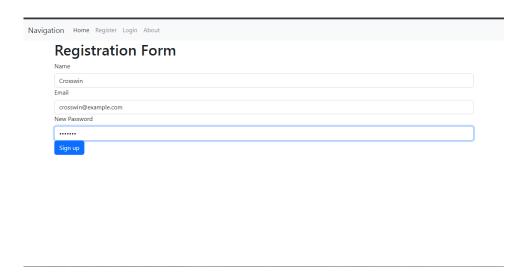
Navigation Home Register Login About

About

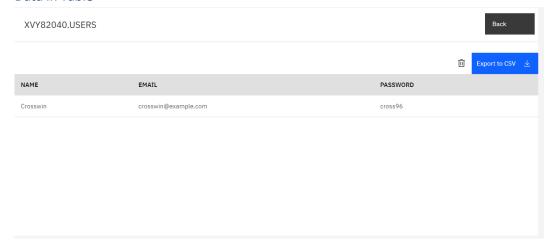
This is the second assingment for Cloud application Development

Working

1. When name, email, password are filled in registration page, the credentials are stored in IBM DB2 and redirected to the login page



Data in Table



2. Enter Details in Login page if details are correct welcome message is shown



Navigation Home Register Login About

Welcome to the portal Crosswin You have logged in

If the entered Credentials are wrong, the following message will be shown

