## Assignment -2

Flask Application And Database

Student Name	MK Aravindan
Student Roll Number	910019106703
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=3883e7e4-18f5-4afe-be8c-
fa31c41761d2.bs2io90l08kqb1od8lcg.databases.appdomain.cloud;PORT=31498;SECURITY=SSL;SSLServer
Certificate=DigiCertGlobalRootCA.crt;UID=vbb21282;PWD=fB7LhEEeJ3MYRHU7",",")
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">
         <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.1/dist/css/bootstrap.min.css" rel="stylesheet"</pre>
       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+RTT6rIHI7NnikvbZlHgTPOOmMi466C8"
       crossorigin="anonymous"></script>
</body>
Home.html
       {% extends 'base.html' %}
       {% block head %}
       <title>Home</title>
       {% endblock %}
       {% block body %}
       <div class='container'>
       <h1>HOMEPAGE</h1>
       Welcome to Flask app!
       </div>
{% endblock %}
Navigation Home Register Login About
     HOMEPAGE
```

Welcome to Flask app!

```
{% 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"
       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
```

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

```
{% 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'>

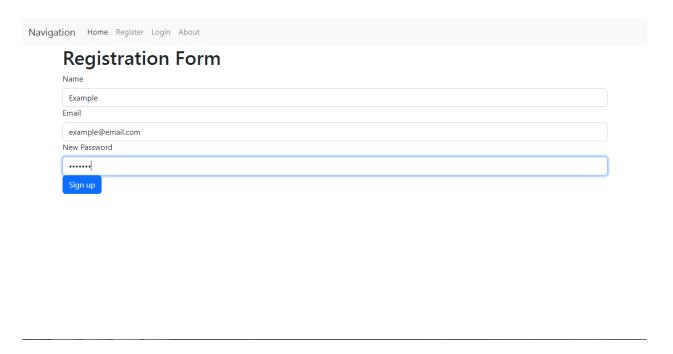
<h1>About</h1>
This is the second assingment for Cloud application Development
</div>
{% endblock %}
```

Navigation Home Register Login About

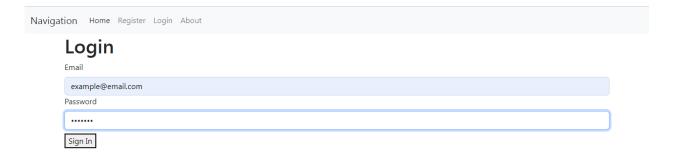
### About

This is the second assingment for Cloud application Development

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



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



# Welcome to the portal Example You have logged in

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

