**Hospital Management System**

**Abstract:**

This mini project is done using Flask, Python along with HTML. It consists of a Login page at the start for the doctor to login. If there is no account for the particular doctor then an option is provided to create an account for the doctor. An account for the doctor will be created after providing the required details. Using the account created a doctor can login in. After logging in an index page is displayed in which there are two options. Using the first option the doctor can create a patient record. Using the second option the doctor can view all the patient records or can search for a particular patient’s record. Sqlite3 is used as database to store and retrieve data.

**Code:**

**HMSMain.py:**

from flask import \*

import sqlite3

Connection=sqlite3.connect("Hospital.db")

print("Database Hospital Connected");

Connection.execute("CREATE TABLE IF NOT EXISTS PatientDet(ID INTEGER PRIMARY KEY AUTOINCREMENT,Name TEXT NOT NULL,Age TEXT NOT NULL,DOB TEXT NOT NULL,Fathers\_Name TEXT NOT NULL,Mothers\_Name TEXT NOT NULL,Address TEXT NOT NULL,Mobile\_No TEXT UNIQUE NOT NULL,Blood\_Group TEXT NOT NULL,Allergy TEXT)")

print("Table PatientDet Created")

Connection.execute("CREATE TABLE IF NOT EXISTS LoginDet(ID INTEGER PRIMARY KEY AUTOINCREMENT,Name TEXT NOT NULL,Degree TEXT NOT NULL,RegNo TEXT UNIQUE NOT NULL,Age TEXT NOT NULL,DOB TEXT NOT NULL,Email TEXT UNIQUE NOT NULL,Mobile\_No TEXT UNIQUE NOT NULL,Username TEXT UNIQUE NOT NULL,Password TEXT NOT NULL)")

print("Table LoginDet Created")

Connection.close()

app=Flask(\_\_name\_\_)

app.secret\_key="Harish"

@app.route("/")

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

def login():

msg=""

if request.method=="POST" and "Username" in request.form and "Password" in request.form:

Username=request.form["Username"]

Password=request.form["Password"]

Connection=sqlite3.connect("Hospital.db")

Cursor=Connection.cursor()

Cursor.execute("SELECT \* FROM LoginDet WHERE Username=? AND Password=?",(Username,Password))

account=Cursor.fetchone()

if account:

session["loggedin"]=True

session["id"]=account[0]

session["username"]=account[1]

msg=account[1]

return render\_template("index.html",msg=msg)

else:

msg="Incorrect Username or Password!"

return render\_template("login.html",msg=msg)

else:

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 "Name" in request.form and "Degree" in request.form and "RegNo" in request.form and "Age" in request.form and "DOB" in request.form and "Email" in request.form and "Mobile\_No" in request.form:

Username=request.form["Username"]

Password=request.form["Password"]

Email=request.form["Email"]

Name=request.form["Name"]

Degree=request.form["Degree"]

RegNo=request.form["RegNo"]

Age=request.form["Age"]

DOB=request.form["DOB"]

Mobile\_No=request.form["Mobile\_No"]

Connection=sqlite3.connect("Hospital.db")

Cursor=Connection.cursor()

Cursor.execute("SELECT \* FROM LoginDet WHERE Username=?",(Username,))

account=Cursor.fetchone()

if account:

msg="Account already exists!"

elif not Username or not Password or not Email or not Name or not Degree or not RegNo or not Age or not DOB or not Mobile\_No:

msg="Please fill out the form!"

else:

Cursor.execute("INSERT INTO LoginDet(Name,Degree,RegNo,Age,DOB,Email,Mobile\_No,Username,Password) VALUES(?,?,?,?,?,?,?,?,?)",(Name,Degree,RegNo,Age,DOB,Email,Mobile\_No,Username,Password))

Connection.commit()

msg="You have successfully registered!"

#elif request.method=="POST":

#msg="Please fill out the form!"

return render\_template("register.html",msg=msg)

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

def index():

msg=""

return render\_template("index.html",msg=msg)

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

def create():

msg=""

if request.method=="POST" and "Name" in request.form and "Age" in request.form and "DOB" in request.form and "Fathers\_Name" in request.form and "Mothers\_Name" in request.form and "Address" in request.form and "Mobile\_No" in request.form and "Blood\_Group" in request.form and "Allergy" in request.form:

Name=request.form["Name"]

Age=request.form["Age"]

DOB=request.form["DOB"]

Fathers\_Name=request.form["Fathers\_Name"]

Mothers\_Name=request.form["Mothers\_Name"]

Address=request.form["Address"]

Mobile\_No=request.form["Mobile\_No"]

Blood\_Group=request.form["Blood\_Group"]

Allergy=request.form["Allergy"]

Connection=sqlite3.connect("Hospital.db")

Cursor=Connection.cursor()

Cursor.execute("SELECT \* FROM PatientDet WHERE Name=? AND Fathers\_Name=? AND Mothers\_Name=? AND DOB=?",(Name,Fathers\_Name,Mothers\_Name,DOB))

account=Cursor.fetchone()

if account:

msg="Record already exists!"

elif not Name or not Age or not DOB or not Fathers\_Name or not Mothers\_Name or not Address or not Mobile\_No or not Blood\_Group:

msg="Please fill out the form!"

else:

Cursor.execute("INSERT INTO PatientDet(Name,Age,DOB,Fathers\_Name,Mothers\_Name,Address,Mobile\_No,Blood\_Group,Allergy) VALUES(?,?,?,?,?,?,?,?,?)",(Name,Age,DOB,Fathers\_Name,Mothers\_Name,Address,Mobile\_No,Blood\_Group,Allergy))

Connection.commit()

msg="Record created successfully!"

return render\_template("create.html",msg=msg)

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

def view():

if request.method=="POST" and "Name" in request.form:

Name=request.form["Name"]

Connection=sqlite3.connect("Hospital.db")

Connection.row\_factory=sqlite3.Row

Cursor=Connection.cursor()

Cursor.execute("Select \* FROM PatientDet WHERE Name=?",(Name,))

rows=Cursor.fetchall()

return render\_template("view.html",rows=rows)

else:

Connection=sqlite3.connect("Hospital.db")

Connection.row\_factory=sqlite3.Row

Cursor=Connection.cursor()

Cursor.execute("Select \* FROM PatientDet")

rows=Cursor.fetchall()

return render\_template("view.html",rows=rows)

if \_\_name\_\_=="\_\_main\_\_":

app.run(debug=True)

**HTML Pages:**

**create.html:**

<html>

<head>

<title>Create</title>

<style>

table,th,td{padding:12px;}

body{background-image:url({{url\_for('static',filename='back.jpg')}});background-size:cover;}

</style>

</head>

<body>

<div align="center">

<h1><p style="color:white"><font size="7">Create Patient Records:</font></p></h1>

</div>

<table>

<div align="left">

<form action="{{ url\_for('create') }}" method="post">

<center><p style="color:white"><font size="5">{{ msg }}</font></p><br></center>

<tr><td><label for="Name" style="color:white">Name:</label></td><td><input id="Name" name="Name" type="text"></td></tr>

<tr><td><label for="Age" style="color:white">Age:</label></td><td><input id="Age" name="Age" type="number" min="1" max="100"></td></tr>

<tr><td><label for="DOB" style="color:white">DOB:</label></td><td><input id="DOB" name="DOB" type="date"></td></tr>

<tr><td><label for="Fathers\_Name" style="color:white">Fathers Name:</label></td><td><input id="Fathers\_Name" name="Fathers\_Name" type="text"></td></tr>

<tr><td><label for="Mothers\_Name" style="color:white">Mothers Name:</label></td><td><input id="Mothers\_Name" name="Mothers\_Name" type="text"></td></tr>

<tr><td><label for="Address" style="color:white">Address:</label></td><td><input id="Address" name="Address" type="text"></td></tr>

<tr><td><label for="Mobile\_No" style="color:white">Mobile Number:</label></td><td><input id="Mobile\_No" name="Mobile\_No" type="tel" pattern="[0-9]{10}"></td></tr>

<tr><td><label for="Blood\_Group" style="color:white">Blood Group:</label></td><td><input id="Blood\_Group" name="Blood\_Group" type="text"></td></tr>

<tr><td><label for="Allergy" style="color:white">Allergy:</label></td><td><input id="Allergy" name="Allergy" type="text"></td></tr>

<tr><td><input type="submit" value="Submit"></td>

</form>

</div>

<form action="{{ url\_for('index') }}" method="post">

<td><input type="submit" value="Back"></td></tr>

</form>

</table>

<a href="{{ url\_for('logout') }}">Logout</a>

</body>

</html>

**index.html:**

<html>

<head>

<title>Index</title>

<style>body{background-image:url({{url\_for('static',filename='back.jpg')}});background-size:cover;}</style>

</head>

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

<div align="center">

<h1><p style="color:white"><font size="8">Welcome!</font></p></h1>

<br>

<h2>

<p style="color:white">Hi<br>{{msg}}</p><br>

<form action="{{ url\_for('create') }}" method="post">

<input type="submit" value="Create Patient Record"><br>

</form>

<form action="{{ url\_for('view') }}" method="post">

<input type="submit" value="View Patient Details"><br>

</form>

</h2><br><br>

<a href="{{ url\_for('logout') }}">Logout</a>

</div>

</body>

</html>

**login.html:**

<html>

<head>

<title>Hospital Login</title>

<style>body{background-image:url({{url\_for('static',filename='back.jpg')}});background-size:cover;}</style>

</head>

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

<div align="center">

<h1><p style="color:white"><font size="8">Login</font></p></h1>

<h2>

<form action="{{ url\_for('login') }}" method="post">

<p style="color:white">{{ msg }}</p><br>

<input id="Username" name="Username" type="text" placeholder="Enter Your Username"><br><br>

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

<input type="submit" value="Sign In"><br><br>

</form>

</h2>

<p style="color:white">Don't have an account? <a href="{{url\_for('register')}}"> Sign Up here</a></p>

</div>

</body>

</html>

**register.html:**

<html>

<head>

<title>Register</title>

<style>

table,th,td{padding:12px;}

body{background-image:url({{url\_for('static',filename='back.jpg')}});background-size:cover;}

</style>

</head>

<body>

<div align="center">

<h1><p style="color:white"><font size="7">Register:</font></p></h1>

</div>

<table>

<div align="left">

<form action="{{ url\_for('register') }}" method="post">

<center><p style="color:white"><font size="5">{{ msg }}</font></p><br></center>

<tr><td><label for="Name" style="color:white">Name:</label></td><td><input id="Name" name="Name" type="text"></td></tr>

<tr><td><label for="Degree" style="color:white">Degree:</label></td><td><input id="Degree" name="Degree" type="text"></td></tr>

<tr><td><label for="RegNo" style="color:white">RegNo:</label></td><td><input id="RegNo" name="RegNo" type="number"></td></tr>

<tr><td><label for="Age" style="color:white">Age:</label></td><td><input id="Age" name="Age" type="number" min="1" max="100"></td></tr>

<tr><td><label for="DOB" style="color:white">DOB:</label></td><td><input id="DOB" name="DOB" type="date"></td></tr>

<tr><td><label for="Email" style="color:white">Email:</label></td><td><input id="Email" name="Email" type="email"></td></tr>

<tr><td><label for="Mobile\_No" style="color:white">Mobile Number:</label></td><td><input id="Mobile\_No" name="Mobile\_No" type="tel" pattern="[0-9]{10}"></td></tr>

<tr><td><label for="Username" style="color:white">Username:</label></td><td><input id="Username" name="Username" type="text"></td></tr>

<tr><td><label for="Password" style="color:white">Password:</label></td><td><input id="Password" name="Password" type="password"></td></tr>

<tr><td colspan="2" align="center"><input type="submit" value="Create"></td></tr>

</form>

</div>

</table>

<p style="color:white">Already have an account? <a href="{{url\_for('login')}}"> Sign In here</a></p>

</body>

</html>

**view.html:**

<html>

<head>

<title>View</title>

<style>

table,th,td{padding:12px;}

body{background-image:url({{url\_for('static',filename='back.jpg')}});background-size:cover;}

</style>

</head>

<body>

<div align="center">

<h1><p style="color:white"><font size="7">Patient Details:</font></p></h1><br><br>

<form action="{{ url\_for('view') }}" method="post">

<label for="Name" style="color:white">Enter the Name:</label>&nbsp

<input id="Name" name="Name" type="text">

<input type="submit" value="Search">

</form>

<form action="{{ url\_for('index') }}" method="post">

<input type="submit" value="Back">

</form>

<table border="1" bordercolor="white" bgcolor="#091E33">

<thead style="color:white" align="center"><tr>

<th>ID</th>

<th>Name</th>

<th>Age</th>

<th>DOB</th>

<th>Fathers Name</th>

<th>Mothers Name</th>

<th>Address</th>

<th>Mobile Number</th>

<th>Blood Group</th>

<th>Allergy</th>

</tr></thead>

{% for row in rows %}

<tr style="color:white">

<td>{{row["ID"]}}</td>

<td>{{row["Name"]}}</td>

<td>{{row["Age"]}}</td>

<td>{{row["DOB"]}}</td>

<td>{{row["Fathers\_Name"]}}</td>

<td>{{row["Mothers\_Name"]}}</td>

<td>{{row["Address"]}}</td>

<td>{{row["Mobile\_No"]}}</td>

<td>{{row["Blood\_Group"]}}</td>

<td>{{row["Allergy"]}}</td>

</tr>

{% endfor %}

</table><br><br>

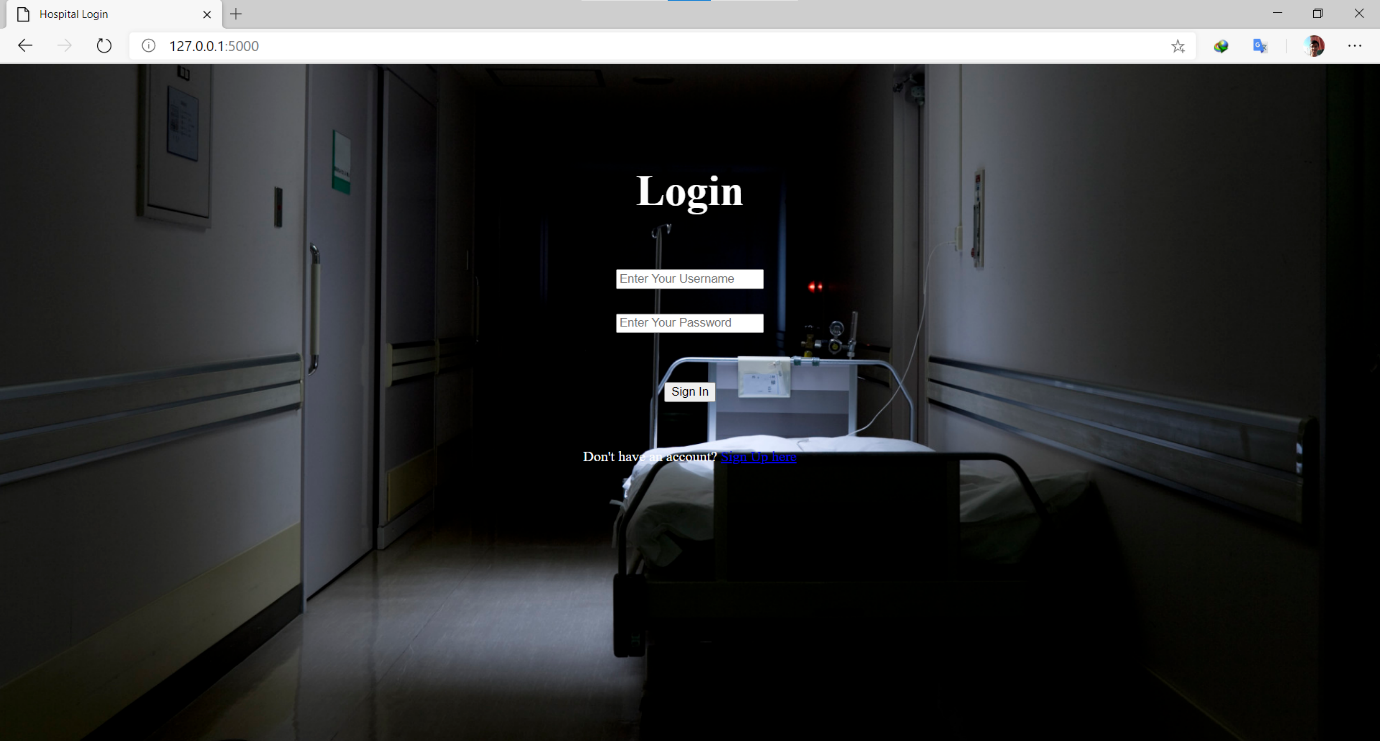
<a href="{{ url\_for('logout') }}">Logout</a>

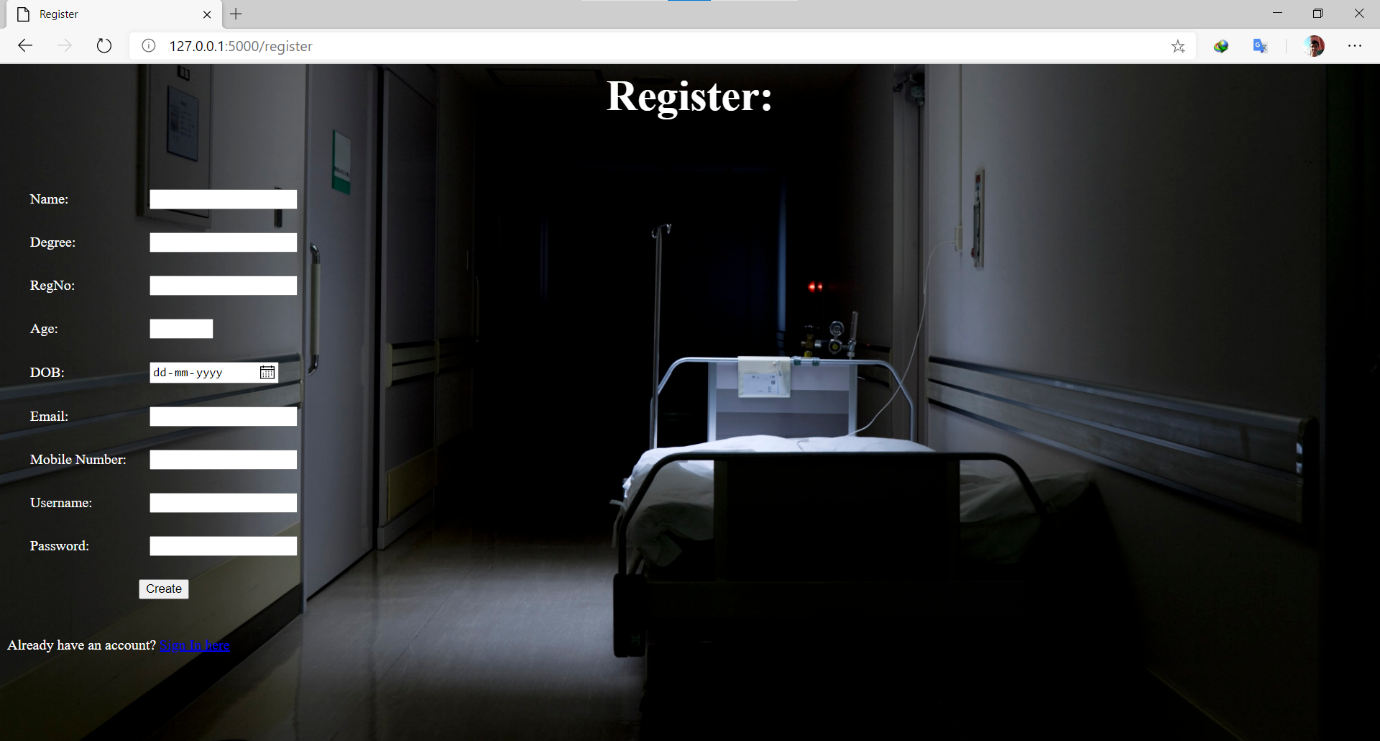
</div>

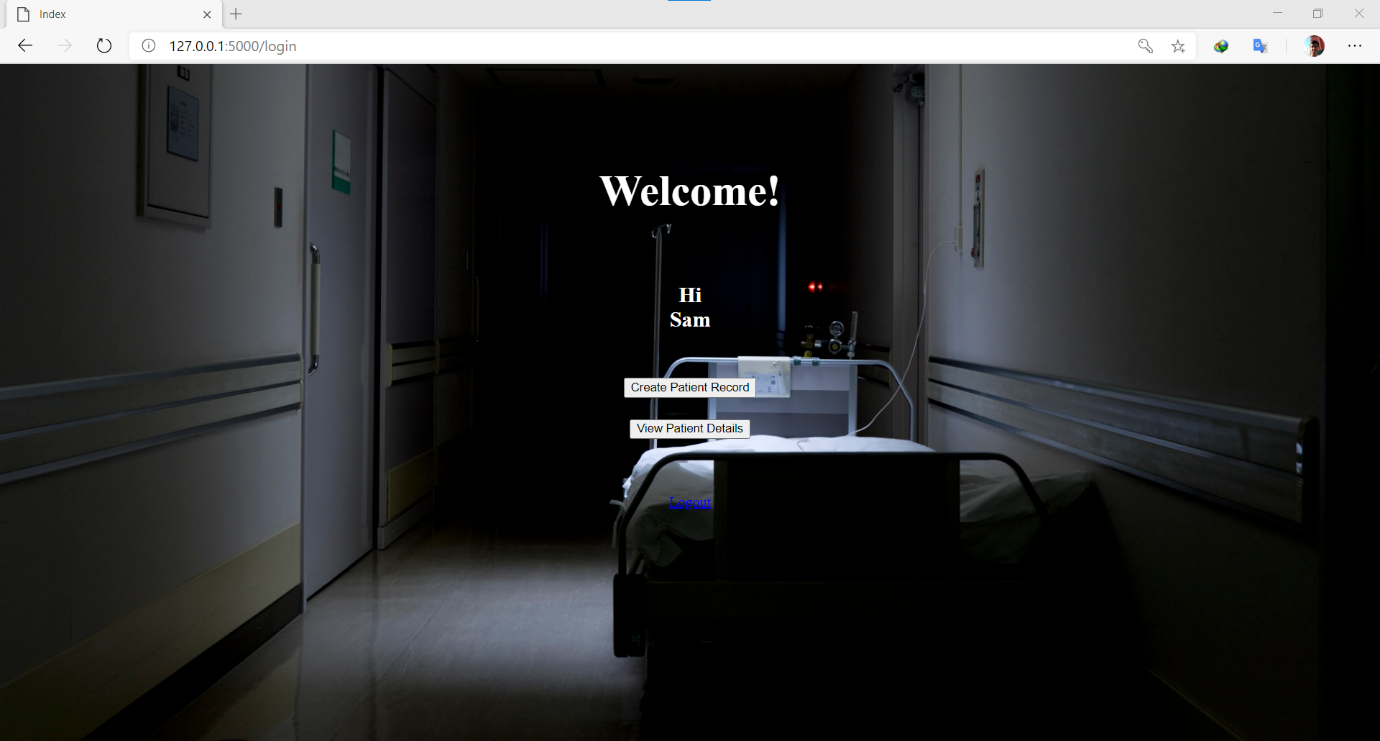
</body>

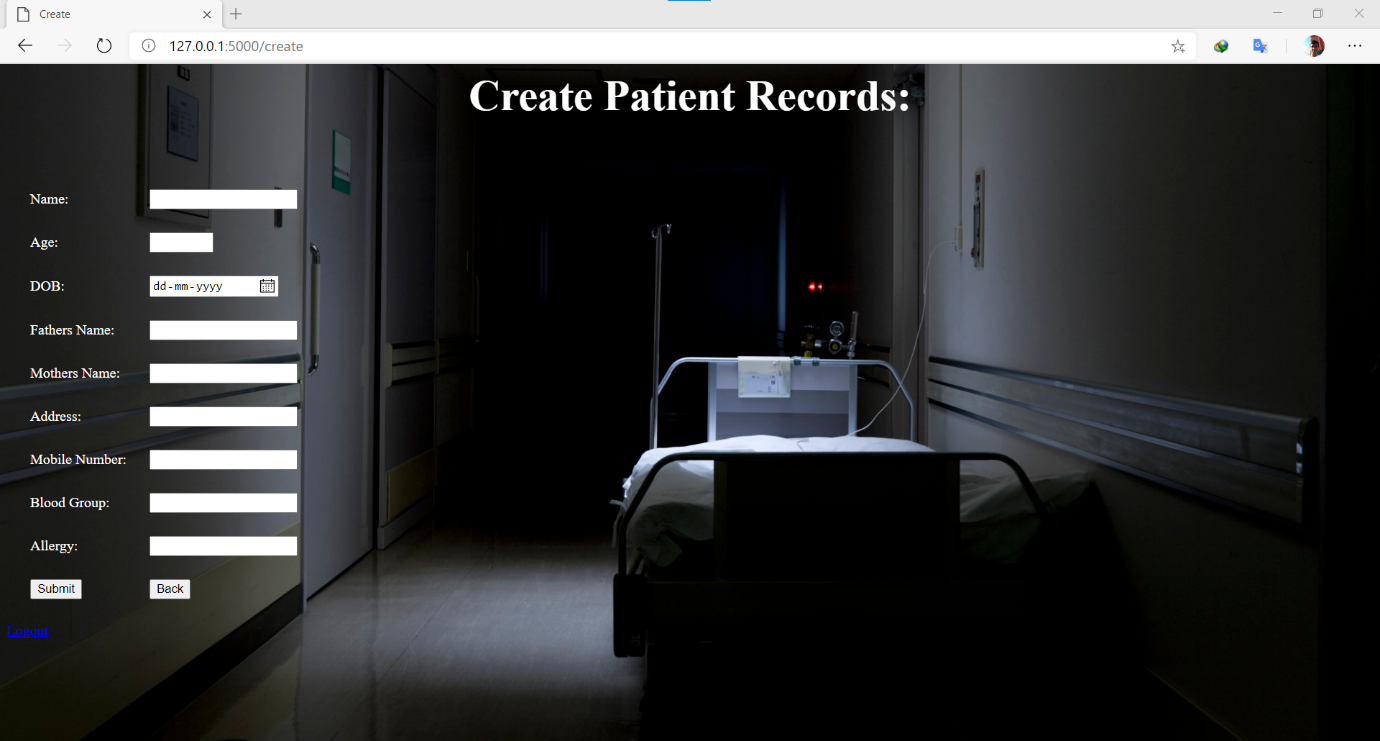
</html>

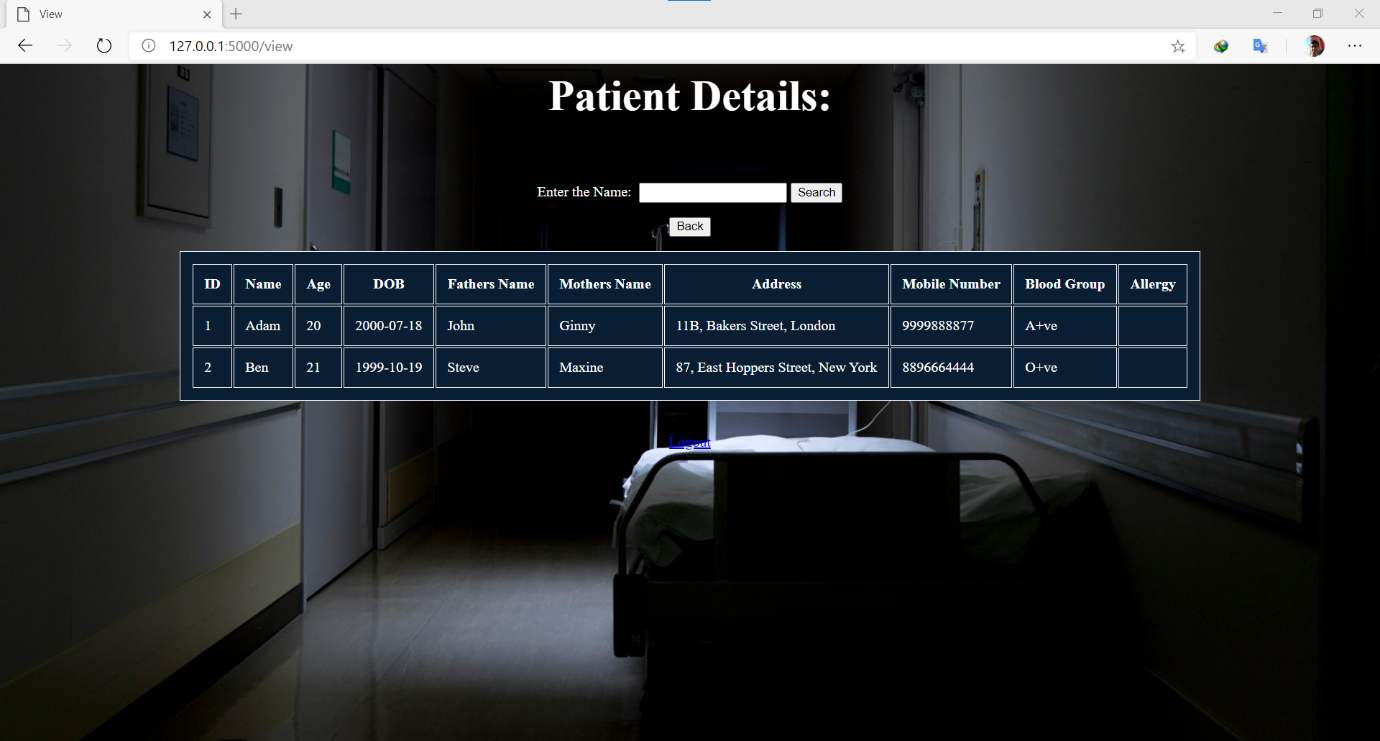
**Output:**











**Reference:**

1. Krosum Labs Videos

2. https://www.geeksforgeeks.org/login-and-registration-project-using-flask-and-mysql/