Blood Bank Management System

-Aman Sharma (20csu009)

-Anu Kumari (20csu020)

-Apoorva Garg (20csu021)

**GitHub Repository link:**

https://github.com/anu1501/Blood-Bank-Management-System/upload

**Introduction:**

Blood Bank Management System (BBMS) is a web-based system that can assists the information of blood bag during its handling in the blood bank. With this system, the user of this system can key in the result of blood test that has been conducted to each of the blood bag received by the blood bank.

**Objective:**

The Main Objective of this System is to design a Web based Application to maintain considerable information of the Patients, Donors, & Report details for any blood-related organization. The application also keeps a record of the donor’s health record for future reference. Blood seekers can request for blood to the administrator.

**Description of the Project:**

MySQL has been used for creating databases where we have stored the data of the whole blood bank. Then servlets have been created for the whole backend purpose where CRUD operations are taking place. Finally for the frontend purpose, jsp/HTML pages have been used.

**Modules:**

We have built our web-based application mainly on three modules. They are as follows-

1.Main Module (BloodBank.jsp)

* Admin Login: adminlogin.html, AdminLogin.java, BloodBankAdmin.java
* Donor Login/Register : donorlogin.html, DonorLogin.java, donorregister.html, DonorRegister.java, BloodBankDonor.java
* Blood Bank Data: ViewBloodBank.java

2.Admin Module

* View Donors Data: BloodBankAdmin.java
* Add Donor Data: adddonor.html, AddData.java
* Update Donor Data: updatedonor.html, UpdateData.java
* DeleteData.java

3. Donor Module –

* Search, View Record: donorname.html, BloodBankDonor.java
* Add Donor Data: adddonor2.html, AddData2.java
* Update Donor Data: updatedonor2.html, UpdateData2.java

4. Blood Bank Module –

* ViewBloodBank.java, SearchDonor.java

**Software Used:**

1. Language:

We used java for our project. Java is a programming language and a platform. Java is a high level, robust, object-oriented and secure programming language.



1. Eclipse IDE

In the context of computing, Eclipse is an integrated development environment (IDE) for developing applications using the Java programming language and other programming languages such as C/C++, Python, PERL, Ruby etc.



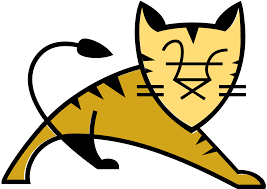
1. Maven Automation Tool

Maven is a powerful project management tool that is based on POM (project object model). It is used for projects build, dependency and documentation.

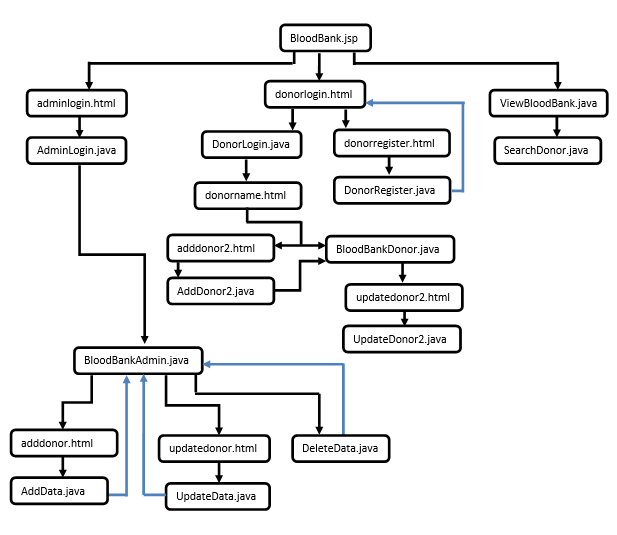


1. Apache Tomcat

Apache Tomcat is a free and open-source implementation of the Jakarta Servlet, Jakarta Expression Language, and WebSocket technologies. Tomcat provides a "pure Java" HTTP web server environment in which Java code can run.



**Workflow:**

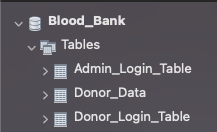


**Codes:**

SQL Commands:

create database Blood\_Bank;

=> Blood\_Bank Database:



>>

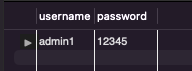
use Blood\_Bank;

create table Admin\_Login\_Table(username VARCHAR(50) , password VARCHAR(50));

insert into Admin\_Login\_Table values('admin1', '12345’);

select \* from Admin\_Login\_Table;

=>Admin\_Login\_Table:



>>

create table Donor\_Login\_Table(username VARCHAR(50) , password VARCHAR(50));

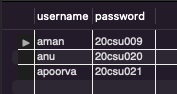
insert into Donor\_Login\_Table values('aman', '20csu009’);

insert into Donor\_Login\_Table values('anu', '20csu020’);

insert into Donor\_Login\_Table values('apoorva', '20csu021’);

select \* from Donor\_Login\_Table;

=>Donor\_Login\_Table:



>>

create table Donor\_Data(name VARCHAR(50), blood\_type VARCHAR(50), blood\_quantity INT(50), health\_record VARCHAR(50), contact\_no VARCHAR(50), address VARCHAR(50));

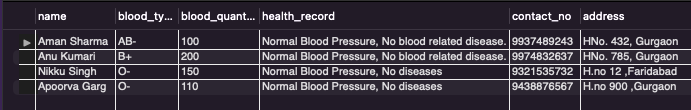
insert into Donor\_Data values('Aman Sharma', 'AB-', '100', 'Normal Blood Pressure, No blood related disease.', '9937489243', 'HNo. 432, Gurgaon');

insert into Donor\_Data values('Anu Kumari', 'B+', '200', 'Normal Blood Pressure, No blood related disease.', '9974832637', 'HNo. 785, Gurgaon');

insert into Donor\_Data values('Nikku Singh', 'O-', '355', 'Normal Blood Pressure, No blood related disease. ', '9546289254', 'HNo. 523, Faridabad');

select \* from Donor\_Data;

=> Donor\_Data Table:



Maven Codes:

=> Main Module:

#BloodBank.jsp

>>

<%@ **page** language=*"java"* contentType=*"text/html; charset=ISO-8859-1"*

pageEncoding=*"ISO-8859-1"*%>

<!**DOCTYPE** html>

<**html**>

<**head**>

<**style**>

h1 {text-align: *center*;}

p {text-align: *center*;}

fieldset{

border: *1px solid rgb(255,0,0)*;

width: *400px*;

float: *center*;

margin: *auto*;

}

legend {text-align: *center*;}

a {text-align: *center*;}

</**style**>

<**meta** charset=*"ISO-8859-1"*>

<**title**>Blood Bank</**title**>

</**head**>

<**body**>

<**h1**>BLOOD BANK</**h1**>

<**p**>

<%

Integer count = (Integer)application.getAttribute("visitor");

if(count==null)

{

count = 1;

out.println("Welcome to the page! ");

}

else

{

out.println("Welcome back to the page!");

count++;

}

application.setAttribute("visitor", count);

%>

</**p**>

<**fieldset**>

<**legend**>LOGIN AS: </**legend**>

<**a** href=*"adminlogin.html"*>Admin.<**br**></**a**>

<**a** href=*"donorlogin.html"*>Donor.<**br**></**a**>

<**a** href=*"ViewBloodBank"*>View Blood Bank.<**br**></**a**>

</**fieldset**>

</**body**>

</**html**>

#adminlogin.html

>>

<**html**>

<**body**>

<**style**>

fieldset{

border: *1px solid rgb(255,0,0)*;

width: *400px*;

float: *center*;

margin:*auto*;

}

legend {text-align: *center*;}

a {text-align: *center*;}

</**style**>

<**form** method=*"post"* action=*"AdminLogin"*>

<**fieldset**>

<**legend**>LOGIN: </**legend**>

Username: <**input** type=*"text"* name=*"username"*/><**br**/><**br**/>

Password: <**input** type=*"password"* name=*"password"*/><**br**/><**br**/>

<**input** type=*"submit"* value=*"Submit"*/>

</**fieldset**>

</**form**>

</**body**>

</**html**>

#AdminLogin.java

>>

package BloodBankProject;

import java.io.IOException;

import java.io.PrintWriter;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.PreparedStatement;

import java.sql.ResultSet;

import java.sql.SQLException;

import javax.servlet.ServletException;

import javax.servlet.http.Cookie;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

/\*\*

\* Servlet implementation class AdminLogin

\*/

public class AdminLogin extends HttpServlet {

private static final long serialVersionUID = 1L;

/\*\*

\* @see HttpServlet#HttpServlet()

\*/

public AdminLogin() {

super();

// TODO Auto-generated constructor stub

}

/\*\*

\* @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)

\*/

protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

// TODO Auto-generated method stub

//response.getWriter().append("Served at: ").append(request.getContextPath());

}

/\*\*

\* @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)

\*/

protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

// TODO Auto-generated method stub

doGet(request, response);

response.setContentType("text/html; charset=UTF-8");

PrintWriter out = response.getWriter();

String name = request.getParameter("username");

String password = request.getParameter("password");

String url = "jdbc:mysql://localhost:3306/Blood\_Bank";

String username = "root";

String pass = "anu2001kumariA\*";

Cookie coo = new Cookie("username", name);

response.addCookie(coo);

try

{

Class.forName("com.mysql.cj.jdbc.Driver");

Connection c = DriverManager.getConnection(url, username, pass);

if(checkUser(c, name, password))

{

out.println("Logged in successfully!");

out.println("\n");

out.println("<html><a href='BloodBankAdmin'>Click here to continue.</a></html>");

}

else

{

out.println("Username or Password incorrect");

}

}

catch (ClassNotFoundException e)

{

e.printStackTrace();

}

catch (SQLException e)

{

e.printStackTrace();

}

}

public boolean checkUser(Connection c, String name, String password) throws SQLException

{

PreparedStatement ps = c.prepareStatement("select \* from Admin\_Login\_Table where username=? and password=?");

ps.setString(1, name);

ps.setString(2, password);

ResultSet rs = ps.executeQuery();

return rs.next();

}

}

#donorlogin.html

>>

<html>

<body>

<style>

fieldset{

border: *1px solid rgb(255,0,0)*;

width: *400px*;

float: *center*;

margin:*auto*;

}

legend {text-align: *center*;}

p {text-align: *center*;}

</style>

<form method=*"post"* action=*"DonorLogin"*>

<fieldset>

<legend>LOGIN: </legend>

Username: <input type=*"text"* name=*"username"*/><br/><br/>

Password: <input type=*"password"* name=*"password"*/><br/><br/>

<input type=*"submit"* value=*"Submit"*/>

</fieldset>

</form>

<p>

<a href=*"donorregister.html"*>New User? Register Now!</a>

</p>

</body>

</html>

#DonorLogin.java

>>

package BloodBankProject;

import java.io.IOException;

import java.io.PrintWriter;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.PreparedStatement;

import java.sql.ResultSet;

import java.sql.SQLException;

import javax.servlet.ServletException;

import javax.servlet.http.Cookie;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

/\*\*

\* Servlet implementation class DonorLogin

\*/

public class DonorLogin extends HttpServlet {

private static final long serialVersionUID = 1L;

/\*\*

\* @see HttpServlet#HttpServlet()

\*/

public DonorLogin() {

super();

// TODO Auto-generated constructor stub

}

/\*\*

\* @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)

\*/

protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

// TODO Auto-generated method stub

//response.getWriter().append("Served at: ").append(request.getContextPath());

}

/\*\*

\* @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)

\*/

protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

// TODO Auto-generated method stub

doGet(request, response);

response.setContentType("text/html; charset=UTF-8");

PrintWriter out = response.getWriter();

String name = request.getParameter("username");

String password = request.getParameter("password");

String url = "jdbc:mysql://localhost:3306/Blood\_Bank";

String username = "root";

String pass = "anu2001kumariA\*";

Cookie coo = new Cookie("username", name);

response.addCookie(coo);

try

{

Class.forName("com.mysql.cj.jdbc.Driver");

Connection c = DriverManager.getConnection(url, username, pass);

if(checkUser(c, name, password))

{

out.println("Logged in successfully!");

out.println("\n");

out.println("<html><a href='donorname.html'>Click here to continue.</a></html>");

}

else

{

out.println("Username or Password incorrect");

}

}

catch (ClassNotFoundException e)

{

e.printStackTrace();

}

catch (SQLException e)

{

e.printStackTrace();

}

}

public boolean checkUser(Connection c, String name, String password) throws SQLException

{

PreparedStatement ps = c.prepareStatement("select \* from Donor\_Login\_Table where username=? and password=?");

ps.setString(1, name);

ps.setString(2, password);

ResultSet rs = ps.executeQuery();

return rs.next();

}

}

#donorregister.html

>>

<**html**>

<**body**>

<**style**>

fieldset{

border: *1px solid rgb(255,0,0)*;

width: *400px*;

float: *center*;

margin:*auto*;

}

legend {text-align: *center*;}

p {text-align: *center*;}

</**style**>

<**form** method=*"post"* action=*"DonorRegister"*>

<**fieldset**>

<**legend**>REGISTER: </**legend**>

Username: <**input** type=*"text"* name=*"username"*/><**br**/><**br**/>

Password: <**input** type=*"password"* name=*"password"*/><**br**/><**br**/>

<**input** type=*"submit"* value=*"Submit"*/>

</**fieldset**>

</**form**>

</**body**>

</**html**>

#DonorRegister.java

>>

package BloodBankProject;

import java.io.IOException;

import java.io.PrintWriter;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.PreparedStatement;

import java.sql.SQLException;

import javax.servlet.ServletException;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

/\*\*

\* Servlet implementation class DonorRegister

\*/

public class DonorRegister extends HttpServlet {

private static final long serialVersionUID = 1L;

/\*\*

\* @see HttpServlet#HttpServlet()

\*/

public DonorRegister() {

super();

// TODO Auto-generated constructor stub

}

/\*\*

\* @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)

\*/

protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

// TODO Auto-generated method stub

response.getWriter().append("Served at: ").append(request.getContextPath());

}

/\*\*

\* @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)

\*/

protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

// TODO Auto-generated method stub

doGet(request, response);

response.setContentType("text/html; charset=UTF-8");

PrintWriter out = response.getWriter();

String name = request.getParameter("username");

String password = request.getParameter("password");

String url = "jdbc:mysql://localhost:3306/Blood\_Bank";

String username = "root";

String password1 = "anu2001kumariA\*";

try

{

Class.forName("com.mysql.cj.jdbc.Driver");

Connection c = DriverManager.getConnection(url, username, password1);

PreparedStatement ps = c.prepareStatement("insert into Donor\_Login\_Table(username, password) values(?, ?)");

ps.setString(1, name);

ps.setString(2, password);

int check = ps.executeUpdate();

if(check>0)

out.print("You are successfully registered!");

out.println("<html><a href='donorlogin.html'>Click here to login.</a></html>");

}

catch (ClassNotFoundException e)

{

e.printStackTrace();

}

catch (SQLException e)

{

e.printStackTrace();

}

}

}

=> Admin Module:

#BloodBankAdmin.java

>>

package BloodBankProject;

import java.io.IOException;

import java.io.PrintWriter;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.ResultSet;

import java.sql.SQLException;

import java.sql.Statement;

import javax.servlet.ServletException;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

/\*\*

\* Servlet implementation class BloodBankAdmin

\*/

public class BloodBankAdmin extends HttpServlet {

private static final long serialVersionUID = 1L;

/\*\*

\* @see HttpServlet#HttpServlet()

\*/

public BloodBankAdmin() {

super();

// TODO Auto-generated constructor stub

}

/\*\*

\* @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)

\*/

protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

// TODO Auto-generated method stub

//response.getWriter().append("Served at: ").append(request.getContextPath());

response.setContentType("text/html; charset=UTF-8");

PrintWriter out = response.getWriter();

String url = "jdbc:mysql://localhost:3306/blood\_bank";

String username = "root";

String password1 = "anu2001kumariA\*";

out.println("<html><style>h1 {text-align: center;}</style>");

out.println("<style>.center {margin-left: auto; margin-right: auto;}</style>");

out.println("<h1>DONOR DATA</h1></html>");

try

{

Class.forName("com.mysql.cj.jdbc.Driver");

Connection c = DriverManager.getConnection(url, username, password1);

Statement stmt = c.createStatement();

String query = "select \* from Donor\_Data";

ResultSet rs = stmt.executeQuery(query);

out.print("<table class='center' border='1' width='75%'");

out.print("<tr><th>Name</th>"

+ "<th>Blood Type</th>"

+ "<th>Blood Quantity (ml)</th>"

+ "<th>Health Record</th>"

+ "<th>Contact Number</th>"

+ "<th>Address</th>"

+ "<th>Delete Record</th>"

+ "</tr>");

while(rs.next())

{

out.print("<tr>"

+"<td>"+rs.getString(1)+"</td>"

+"<td>"+rs.getString(2)+"</td>"

+"<td>"+rs.getInt(3) +"</td>"

+"<td>"+rs.getString(4)+"</td>"

+"<td>"+rs.getString(5)+"</td>"

+"<td>"+rs.getString(6)+"</td>"

+"<td><a href='DeleteData?contact="+rs.getString(5)+"'>Delete</a></td>"

+"</tr>");

}

out.println("<html><style>ul {text-align: center;}</style>");

out.println("<html><style>li {text-align: center;}</style>");

out.print("<ul><a href='adddonor.html'>Add Donor</a>");

out.print(" / ");

out.print("<a href='updatedonor.html'>Update Donor</a></ul></html>");

}

catch (ClassNotFoundException e)

{

e.printStackTrace();

}

catch (SQLException e)

{

e.printStackTrace();

}

}

/\*\*

\* @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)

\*/

protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

// TODO Auto-generated method stub

doGet(request, response);

}

}

#adddonor.html

>>

<**html**>

<**body**>

<**style**>

fieldset{

border: *1px solid rgb(255,0,0)*;

width: *400px*;

float: *center*;

margin:*auto*;

}

legend {text-align: *center*;}

p {text-align: *center*;}

</**style**>

<**form** method=*"post"* action=*"AddData"*>

<**fieldset**>

<**legend**>ENTER THE DETAILS: </**legend**>

<**p**>

Name: <**input** type=*"text"* name=*"name"*/><**br**/><**br**/>

Blood Type: <**input** type=*"text"* name=*"btype"*/><**br**/><**br**/>

Blood Quantity: <**input** type=*"text"* name=*"qty"*/><**br**/><**br**/>

Health Record: <**input** type=*"text"* name=*"hrecord"*/><**br**/><**br**/>

Contact Number: <**input** type=*"text"* name=*"contact"*/><**br**/><**br**/>

Address: <**input** type=*"text"* name=*"address"*/><**br**/><**br**/>

<**input** type=*"submit"* value=*"Submit Details"*/>

</**p**>

</**fieldset**>

</**form**>

</**form**>

</**body**>

</**html**>

#AddData.java

>>

package BloodBankProject;

import java.io.IOException;

import java.io.PrintWriter;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.PreparedStatement;

import java.sql.SQLException;

import javax.servlet.ServletException;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

/\*\*

\* Servlet implementation class AddData

\*/

public class AddData extends HttpServlet {

private static final long serialVersionUID = 1L;

/\*\*

\* @see HttpServlet#HttpServlet()

\*/

public AddData() {

super();

// TODO Auto-generated constructor stub

}

/\*\*

\* @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)

\*/

protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

// TODO Auto-generated method stub

//response.getWriter().append("Served at: ").append(request.getContextPath());

}

/\*\*

\* @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)

\*/

protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

// TODO Auto-generated method stub

doGet(request, response);

response.setContentType("text/html; charset=UTF-8");

PrintWriter out = response.getWriter();

String url = "jdbc:mysql://localhost:3306/blood\_bank";

String username = "root";

String password1 = "anu2001kumariA\*";

String name = request.getParameter("name");

String btype = request.getParameter("btype");

String qty = request.getParameter("qty");

String hrecord = request.getParameter("hrecord");

String contact = request.getParameter("contact");

String address = request.getParameter("address");

try

{

Class.forName("com.mysql.cj.jdbc.Driver");

Connection c = DriverManager.getConnection(url, username, password1);

PreparedStatement ps = c.prepareStatement("insert into Donor\_Data values(?, ?, ?, ?, ?, ?)");

ps.setString(1, name);

ps.setString(2, btype);

ps.setString(3, qty);

ps.setString(4, hrecord);

ps.setString(5, contact);

ps.setString(6, address);

int check = ps.executeUpdate();

if(check>0)

{

out.println("Record successfully added.");

}

else

{

out.println("ERROR!");

}

out.println("<a href='BloodBankAdmin'>Click here to return.</a>");

}

catch (ClassNotFoundException e)

{

e.printStackTrace();

}

catch (SQLException e)

{

e.printStackTrace();

}

}

}

#updatedonor.html

>>

**<html>**

**<body>**

**<style>**

**fieldset{**

**border: *1px solid rgb(255,0,0)*;**

**width: *400px*;**

**float: *center*;**

**margin:*auto*;**

**}**

**legend {text-align: *center*;}**

**p {text-align: *center*;}**

**</style>**

**<form method=*"post"* action=*"UpdateData"*>**

**<fieldset>**

**<legend>ENTER THE DETAILS: </legend>**

**<p>**

**Name: <input type=*"text"* name=*"name"*/><br/><br/>**

**Blood Quantity: <input type=*"text"* name=*"qty"*/><br/><br/>**

**Health Record: <input type=*"text"* name=*"hrecord"*/><br/><br/>**

**Contact Number: <input type=*"text"* name=*"contact"*/><br/><br/>**

**Address: <input type=*"text"* name=*"address"*/><br/><br/>**

**<input type=*"submit"* value=*"Submit Details"*/>**

**</p>**

**</fieldset>**

**</form>**

**</form>**

**</body>**

**</html>**

#UpdateData.java

>>

package BloodBankProject;

import java.io.IOException;

import java.io.PrintWriter;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.PreparedStatement;

import java.sql.SQLException;

import javax.servlet.ServletException;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

/\*\*

\* Servlet implementation class UpdateData

\*/

public class UpdateData extends HttpServlet {

private static final long serialVersionUID = 1L;

/\*\*

\* @see HttpServlet#HttpServlet()

\*/

public UpdateData() {

super();

// TODO Auto-generated constructor stub

}

/\*\*

\* @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)

\*/

protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

// TODO Auto-generated method stub

//response.getWriter().append("Served at: ").append(request.getContextPath());

response.setContentType("text/html; charset=UTF-8");

PrintWriter out = response.getWriter();

String url = "jdbc:mysql://localhost:3306/Blood\_Bank";

String username = "root";

String password1 = "anu2001kumariA\*";

String name = request.getParameter("name");

String qty = request.getParameter("qty");

String hrecord = request.getParameter("hrecord");

String contact = request.getParameter("contact");

String address = request.getParameter("address");

try

{

Class.forName("com.mysql.cj.jdbc.Driver");

Connection c = DriverManager.getConnection(url, username, password1);

PreparedStatement ps = c.prepareStatement("update Donor\_Data set blood\_quantity=?, health\_record=?, contact\_no=?, address=? where name= ?");

ps.setString(1, qty);

ps.setString(2, hrecord);

ps.setString(3, contact);

ps.setString(4, address);

ps.setString(5, name);

int check = ps.executeUpdate();

if(check>0)

{

out.println("Record updated successfully!");

}

else

{

out.println("ERROR!");

}

out.println("<a href='BloodBankAdmin'>Click here to return</a>");

}

catch (ClassNotFoundException e)

{

e.printStackTrace();

}

catch (SQLException e)

{

e.printStackTrace();

}

}

/\*\*

\* @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)

\*/

protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

// TODO Auto-generated method stub

doGet(request, response);

}

}

#DeleteData.java

>>

package BloodBankProject;

import java.io.IOException;

import java.io.PrintWriter;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.PreparedStatement;

import java.sql.SQLException;

import javax.servlet.ServletException;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

/\*\*

\* Servlet implementation class DeleteData

\*/

public class DeleteData extends HttpServlet {

private static final long serialVersionUID = 1L;

/\*\*

\* @see HttpServlet#HttpServlet()

\*/

public DeleteData() {

super();

// TODO Auto-generated constructor stub

}

/\*\*

\* @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)

\*/

protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

// TODO Auto-generated method stub

//response.getWriter().append("Served at: ").append(request.getContextPath());

response.setContentType("text/html; charset=UTF-8");

PrintWriter out = response.getWriter();

String url = "jdbc:mysql://localhost:3306/blood\_bank";

String username = "root";

String password1 = "anu2001kumariA\*";

try

{

Class.forName("com.mysql.cj.jdbc.Driver");

Connection c = DriverManager.getConnection(url, username, password1);

String contact = request.getQueryString();

String[] con = contact.split("=");

String de = con[1];

PreparedStatement ps = c.prepareStatement("delete from Donor\_Data where contact\_no = ?");

ps.setString(1, de);

//

int record = ps.executeUpdate();

if(record == 1)

{

out.println("Deleted succesfully!");

}

else

{

out.println("Record not found.");

}

out.println("<a href='BloodBankAdmin'>Click here to return.</a>");

}

catch (ClassNotFoundException e)

{

e.printStackTrace();

}

catch (SQLException e)

{

e.printStackTrace();

}

}

/\*\*

\* @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)

\*/

protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

// TODO Auto-generated method stub

doGet(request, response);

}

}

=> Donor Module:

#donorname.html

>>

<**html**>

<**body**>

<**style**>

fieldset{

border: *1px solid rgb(255,0,0)*;

width: *400px*;

float: *center*;

margin:*auto*;

}

p {text-align: *center*;}

</**style**>

<**form** method=*"post"* action=*"BloodBankDonor"*>

<**fieldset**>

Enter Full Name: <**input** type=*"text"* name=*"fname"*/><**br**/><**br**/>

<**input** type=*"submit"* value=*"Submit Details"*/>

</**fieldset**>

</**form**>

<**p**>

<**a** href=*'adddonor2.html'*>Not a donor yet? Register here.</**a**><**br**><**br**>

</**p**>

</**body**>

</**html**>

#BloodBankDonor.java

>>

package BloodBankProject;

import java.io.IOException;

import java.io.PrintWriter;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.PreparedStatement;

import java.sql.ResultSet;

import java.sql.SQLException;

import java.sql.Statement;

import javax.servlet.ServletException;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

/\*\*

\* Servlet implementation class BloodBankDonor

\*/

public class BloodBankDonor extends HttpServlet {

private static final long serialVersionUID = 1L;

/\*\*

\* @see HttpServlet#HttpServlet()

\*/

public BloodBankDonor() {

super();

// TODO Auto-generated constructor stub

}

/\*\*

\* @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)

\*/

protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

// TODO Auto-generated method stub

//response.getWriter().append("Served at: ").append(request.getContextPath());

response.setContentType("text/html; charset=UTF-8");

PrintWriter out = response.getWriter();

String url = "jdbc:mysql://localhost:3306/blood\_bank";

String username = "root";

String password1 = "anu2001kumariA\*";

String fname = request.getParameter("fname");

String n = request.getParameter("n");

String na = request.getParameter("na");

out.println("<html><style>h1 {text-align: center;}</style>");

out.println("<style>.center {margin-left: auto; margin-right: auto;}</style>");

out.println("<h1>YOUR RECORD</h1></html>");

try

{

Class.forName("com.mysql.cj.jdbc.Driver");

Connection c = DriverManager.getConnection(url, username, password1);

//Statement stmt = c.createStatement();

String query = "select \* from Donor\_Data where name = ?";

PreparedStatement ps = c.prepareStatement(query);

if(n!=null)

{

ps.setString(1, n);

}

else if(fname!=null)

{

ps.setString(1, fname);

}

else if(na!=null)

{

ps.setString(1, na);

}

//String query = "select from Donor\_Data where name="+fname;

ResultSet rs = ps.executeQuery();

out.print("<table class='center' border='1' width='75%'");

out.print("<tr><th>Name</th>"

+ "<th>Blood Type</th>"

+ "<th>Blood Quantity (ml)</th>"

+ "<th>Health Record</th>"

+ "<th>Contact Number</th>"

+ "<th>Address</th>"

+ "</tr>");

while(rs.next())

{

out.print("<tr>"

+"<td>"+rs.getString(1)+"</td>"

+"<td>"+rs.getString(2)+"</td>"

+"<td>"+rs.getInt(3) +"</td>"

+"<td>"+rs.getString(4)+"</td>"

+"<td>"+rs.getString(5)+"</td>"

+"<td>"+rs.getString(6)+"</td>"

+"</tr>");

}

out.println("<html><style>p {text-align: center;}</style>");

out.print("<p><a href='updatedonor2.html'>Update Record</a></p></html>");

}

catch (ClassNotFoundException e)

{

e.printStackTrace();

}

catch (SQLException e)

{

e.printStackTrace();

}

}

/\*\*

\* @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)

\*/

protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

// TODO Auto-generated method stub

doGet(request, response);

}

}

#adddonor2.html

>>

<**html**>

<**body**>

<**style**>

fieldset{

border: *1px solid rgb(255,0,0)*;

width: *400px*;

float: *center*;

margin:*auto*;

}

legend {text-align: *center*;}

p {text-align: *center*;}

</**style**>

<**form** method=*"post"* action=*"AddData2"*>

<**fieldset**>

<**legend**>ENTER THE DETAILS: </**legend**>

<**p**>

Name: <**input** type=*"text"* name=*"name"*/><**br**/><**br**/>

Blood Type: <**input** type=*"text"* name=*"btype"*/><**br**/><**br**/>

Blood Quantity: <**input** type=*"text"* name=*"qty"*/><**br**/><**br**/>

Health Record: <**input** type=*"text"* name=*"hrecord"*/><**br**/><**br**/>

Contact Number: <**input** type=*"text"* name=*"contact"*/><**br**/><**br**/>

Address: <**input** type=*"text"* name=*"address"*/><**br**/><**br**/>

<**input** type=*"submit"* value=*"Submit Details"*/>

</**p**>

</**fieldset**>

</**form**>

</**form**>

</**body**>

</**html**>

#AddData2.java

>>

package BloodBankProject;

import java.io.IOException;

import java.io.PrintWriter;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.PreparedStatement;

import java.sql.SQLException;

import javax.servlet.ServletException;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

/\*\*

\* Servlet implementation class AddData2

\*/

public class AddData2 extends HttpServlet {

private static final long serialVersionUID = 1L;

/\*\*

\* @see HttpServlet#HttpServlet()

\*/

public AddData2() {

super();

// TODO Auto-generated constructor stub

}

/\*\*

\* @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)

\*/

protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

// TODO Auto-generated method stub

//response.getWriter().append("Served at: ").append(request.getContextPath());

}

/\*\*

\* @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)

\*/

protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

// TODO Auto-generated method stub

doGet(request, response);

response.setContentType("text/html; charset=UTF-8");

PrintWriter out = response.getWriter();

String url = "jdbc:mysql://localhost:3306/blood\_bank";

String username = "root";

String password1 = "anu2001kumariA\*";

String name = request.getParameter("name");

String btype = request.getParameter("btype");

String qty = request.getParameter("qty");

String hrecord = request.getParameter("hrecord");

String contact = request.getParameter("contact");

String address = request.getParameter("address");

try

{

Class.forName("com.mysql.cj.jdbc.Driver");

Connection c = DriverManager.getConnection(url, username, password1);

PreparedStatement ps = c.prepareStatement("insert into Donor\_Data values(?, ?, ?, ?, ?, ?)");

ps.setString(1, name);

ps.setString(2, btype);

ps.setString(3, qty);

ps.setString(4, hrecord);

ps.setString(5, contact);

ps.setString(6, address);

int check = ps.executeUpdate();

if(check>0)

{

out.println("Record successfully added.");

}

else

{

out.println("ERROR!");

}

//out.println("<a href='BloodBankDonor'>Click here to return.</a>");

out.print("<a href='BloodBankDonor?n="+name+"'>Click here to return.</a>");

}

catch (ClassNotFoundException e)

{

e.printStackTrace();

}

catch (SQLException e)

{

e.printStackTrace();

}

}

}

#updatedonor2.html

>>

<**html**>

<**body**>

<**style**>

fieldset{

border: *1px solid rgb(255,0,0)*;

width: *400px*;

float: *center*;

margin:*auto*;

}

legend {text-align: *center*;}

p {text-align: *center*;}

</**style**>

<**form** method=*"post"* action=*"UpdateData2"*>

<**fieldset**>

<**legend**>ENTER THE DETAILS: </**legend**>

<**p**>

Name: <**input** type=*"text"* name=*"name"*/><**br**/><**br**/>

Blood Quantity: <**input** type=*"text"* name=*"qty"*/><**br**/><**br**/>

Health Record: <**input** type=*"text"* name=*"hrecord"*/><**br**/><**br**/>

Contact Number: <**input** type=*"text"* name=*"contact"*/><**br**/><**br**/>

Address: <**input** type=*"text"* name=*"address"*/><**br**/><**br**/>

<**input** type=*"submit"* value=*"Submit Details"*/>

</**p**>

</**fieldset**>

</**form**>

</**form**>

</**body**>

</**html**>

#UpdateData2.java

>>

package BloodBankProject;

import java.io.IOException;

import java.io.PrintWriter;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.PreparedStatement;

import java.sql.SQLException;

import javax.servlet.ServletException;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

/\*\*

\* Servlet implementation class UpdateData2

\*/

public class UpdateData2 extends HttpServlet {

private static final long serialVersionUID = 1L;

/\*\*

\* @see HttpServlet#HttpServlet()

\*/

public UpdateData2() {

super();

// TODO Auto-generated constructor stub

}

/\*\*

\* @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)

\*/

protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

// TODO Auto-generated method stub

//response.getWriter().append("Served at: ").append(request.getContextPath());

response.setContentType("text/html; charset=UTF-8");

PrintWriter out = response.getWriter();

String url = "jdbc:mysql://localhost:3306/Blood\_Bank";

String username = "root";

String password1 = "anu2001kumariA\*";

String name = request.getParameter("name");

String qty = request.getParameter("qty");

String hrecord = request.getParameter("hrecord");

String contact = request.getParameter("contact");

String address = request.getParameter("address");

try

{

Class.forName("com.mysql.cj.jdbc.Driver");

Connection c = DriverManager.getConnection(url, username, password1);

PreparedStatement ps = c.prepareStatement("update Donor\_Data set blood\_quantity=?, health\_record=?, contact\_no=?, address=? where name= ?");

ps.setString(1, qty);

ps.setString(2, hrecord);

ps.setString(3, contact);

ps.setString(4, address);

ps.setString(5, name);

int check = ps.executeUpdate();

if(check>0)

{

out.println("Record updated successfully!");

}

else

{

out.println("ERROR!");

}

//out.println("<a href='donorname.html'>Click here to return</a>");

out.println("<a href='BloodBankDonor?na="+name+"'>Click here to return.</a>");

}

catch (ClassNotFoundException e)

{

e.printStackTrace();

}

catch (SQLException e)

{

e.printStackTrace();

}

}

/\*\*

\* @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)

\*/

protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

// TODO Auto-generated method stub

doGet(request, response);

}

}

=> Blood Bank Module:

#ViewBloodBank.java

>>

package BloodBankProject;

import java.io.IOException;

import java.io.PrintWriter;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.ResultSet;

import java.sql.SQLException;

import java.sql.Statement;

import javax.servlet.ServletException;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

/\*\*

\* Servlet implementation class ViewBloodBank

\*/

public class ViewBloodBank extends HttpServlet {

private static final long serialVersionUID = 1L;

/\*\*

\* @see HttpServlet#HttpServlet()

\*/

public ViewBloodBank() {

super();

// TODO Auto-generated constructor stub

}

/\*\*

\* @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)

\*/

protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

// TODO Auto-generated method stub

response.setContentType("text/html; charset=UTF-8");

PrintWriter out = response.getWriter();

String url = "jdbc:mysql://localhost:3306/blood\_bank";

String username = "root";

String password1 = "anu2001kumariA\*";

out.println("<html><style>h1 {text-align: center;}</style>");

out.println("<style>p {text-align: center;}</style>");

out.println("<style>.center {margin-left: auto; margin-right: auto;}</style></html>");

out.println("<html><body><form method='post' action='SearchDonor'>"+

"Enter Blood Type: "+ "<input type='text' name='type'/><br/><br/>"+

"<input type='submit' value='Submit'/><br/>"

+ "</form></body></html>");

out.println("<h1>BLOOD BANK DATA</h1>");

try

{

Class.forName("com.mysql.cj.jdbc.Driver");

Connection c = DriverManager.getConnection(url, username, password1);

String query = "select \* from Donor\_Data";

Statement stmt = c.createStatement();

ResultSet rs = stmt.executeQuery(query);

out.print("<table class='center' border='1' width='75%'");

out.print("<tr><th>Name</th>"

+ "<th>Blood Type</th>"

+ "<th>Blood Quantity (ml)</th>"

+ "<th>Contact Number</th>"

+ "</tr>");

while(rs.next())

{

out.print("<tr>"

+"<td>"+rs.getString(1)+"</td>"

+"<td>"+rs.getString(2)+"</td>"

+"<td>"+rs.getInt(3) +"</td>"

+"<td>"+rs.getString(5)+"</td>"

+"</tr>");

}

}

catch (ClassNotFoundException e)

{

e.printStackTrace();

}

catch (SQLException e)

{

e.printStackTrace();

}

out.println("<p>For more details contact Admin (+919438268143)</p>");

out.println("\n");

out.println("\n");

}

/\*\*

\* @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)

\*/

protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

// TODO Auto-generated method stub

doGet(request, response);

}

}

#SearchDonor.java

>>

package BloodBankProject;

import java.io.IOException;

import java.io.PrintWriter;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.PreparedStatement;

import java.sql.ResultSet;

import java.sql.SQLException;

import javax.servlet.ServletException;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

/\*\*

\* Servlet implementation class SearchDonor

\*/

public class SearchDonor extends HttpServlet {

private static final long serialVersionUID = 1L;

/\*\*

\* @see HttpServlet#HttpServlet()

\*/

public SearchDonor() {

super();

// TODO Auto-generated constructor stub

}

/\*\*

\* @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)

\*/

protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

// TODO Auto-generated method stub

//response.getWriter().append("Served at: ").append(request.getContextPath());

String btype = request.getParameter("type");

response.setContentType("text/html; charset=UTF-8");

PrintWriter out = response.getWriter();

String url = "jdbc:mysql://localhost:3306/blood\_bank";

String username = "root";

String password1 = "anu2001kumariA\*";

out.println("<html><style>h1 {text-align: center;}</style>");

out.println("<style>.center {margin-left: auto; margin-right: auto;}</style></html>");

out.println("<h1>BLOOD BANK DATA, Type: " +btype+ "</h1>");

try

{

Class.forName("com.mysql.cj.jdbc.Driver");

Connection c = DriverManager.getConnection(url, username, password1);

String query = "select \* from Donor\_Data where blood\_type = ?";

PreparedStatement ps = c.prepareStatement(query);

ps.setString(1, btype);

ResultSet rs = ps.executeQuery();

out.print("<table class='center' border='1' width='75%'");

out.print("<tr><th>Name</th>"

+ "<th>Blood Quantity (ml)</th>"

+ "<th>Health Record</th>"

+ "<th>Contact Number</th>"

+ "</tr>");

while(rs.next())

{

out.print("<tr>"

+"<td>"+rs.getString(1)+"</td>"

+"<td>"+rs.getInt(3) +"</td>"

+"<td>"+rs.getString(4)+"</td>"

+"<td>"+rs.getString(5)+"</td>"

+"</tr>");

}

}

catch (ClassNotFoundException e)

{

e.printStackTrace();

}

catch (SQLException e)

{

e.printStackTrace();

}

}

/\*\*

\* @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)

\*/

protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

// TODO Auto-generated method stub

doGet(request, response);

}

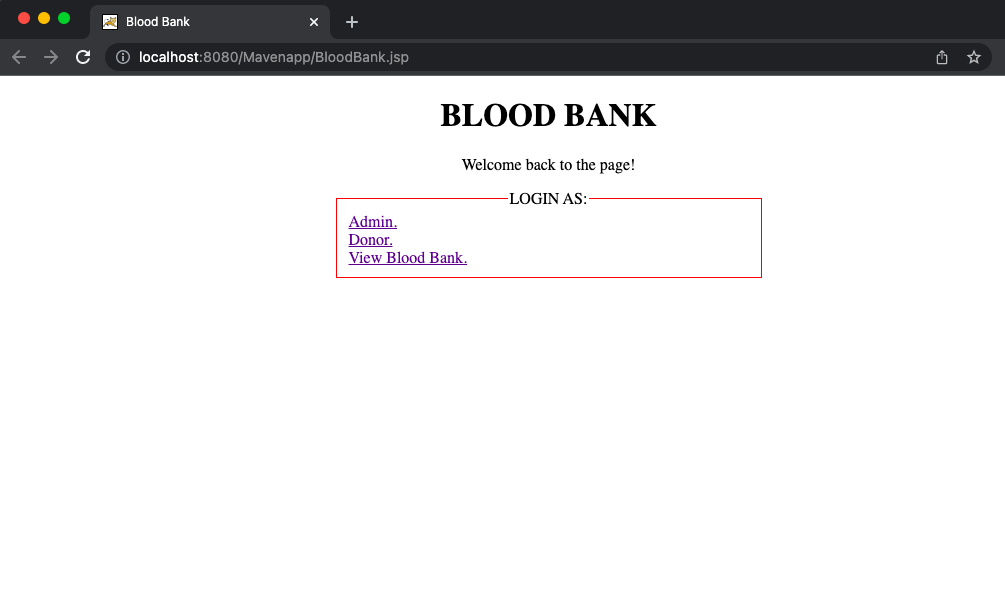
}

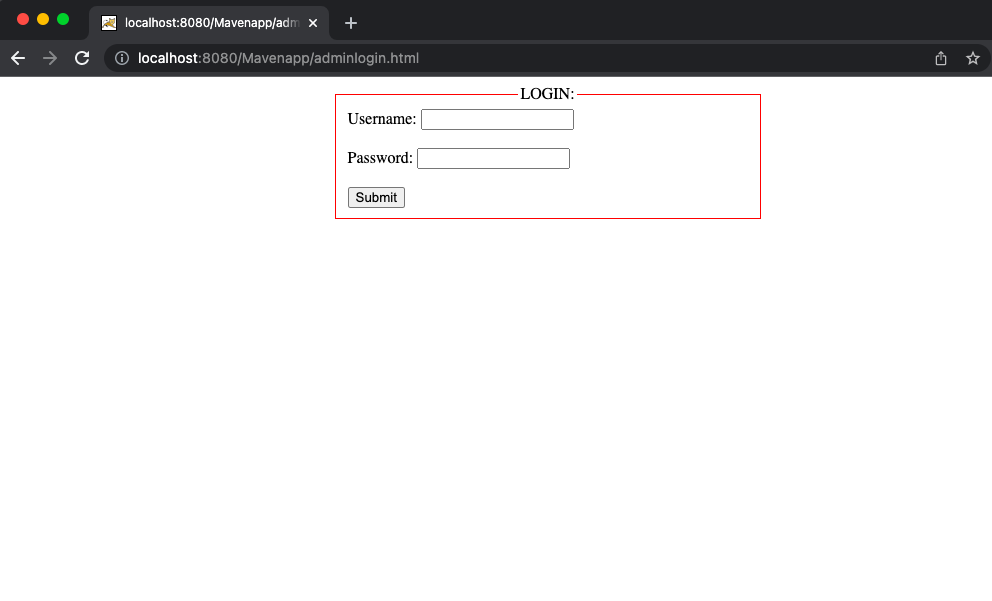
**Result:**

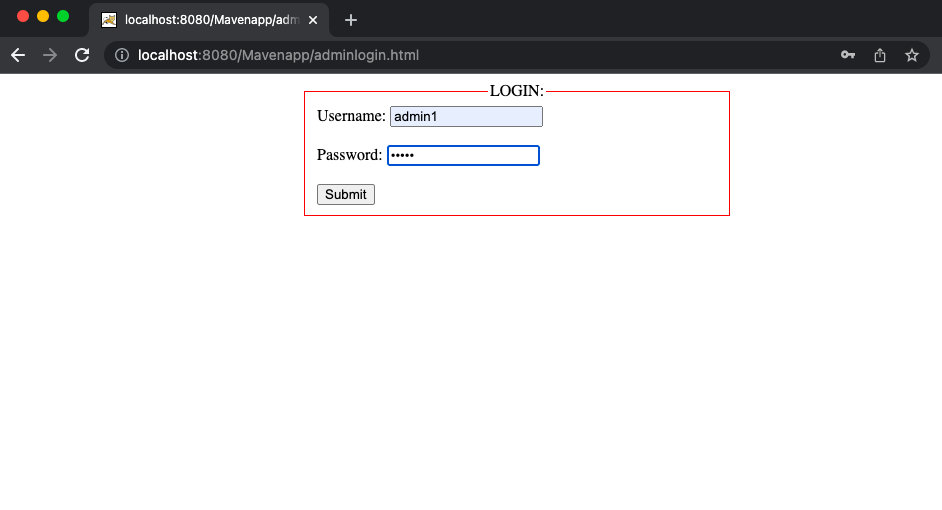
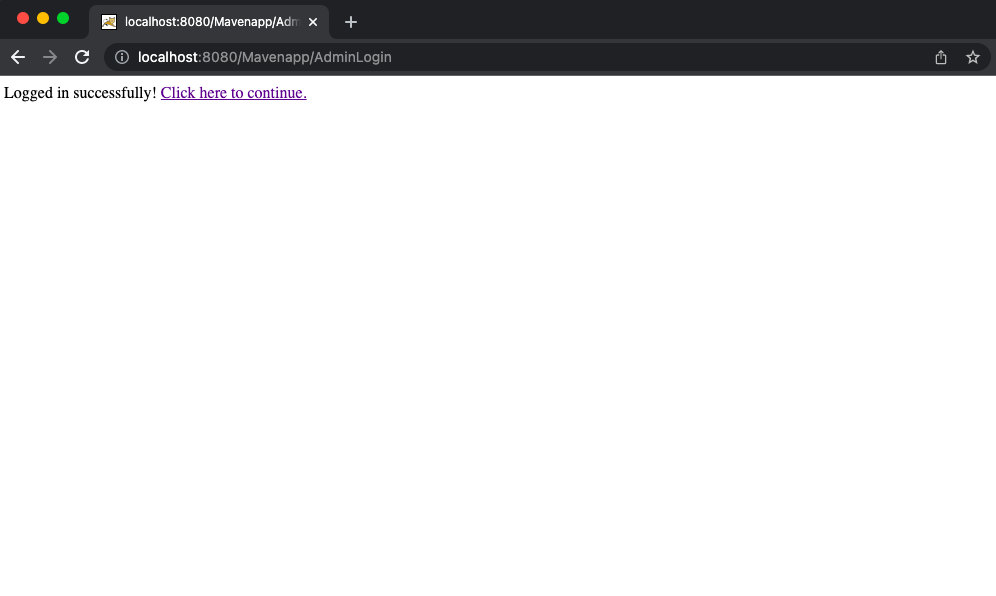
Project link- <http://localhost:8080/Mavenapp/BloodBank.jsp>

Procedure:

Home page being displayed after clicking the above link.

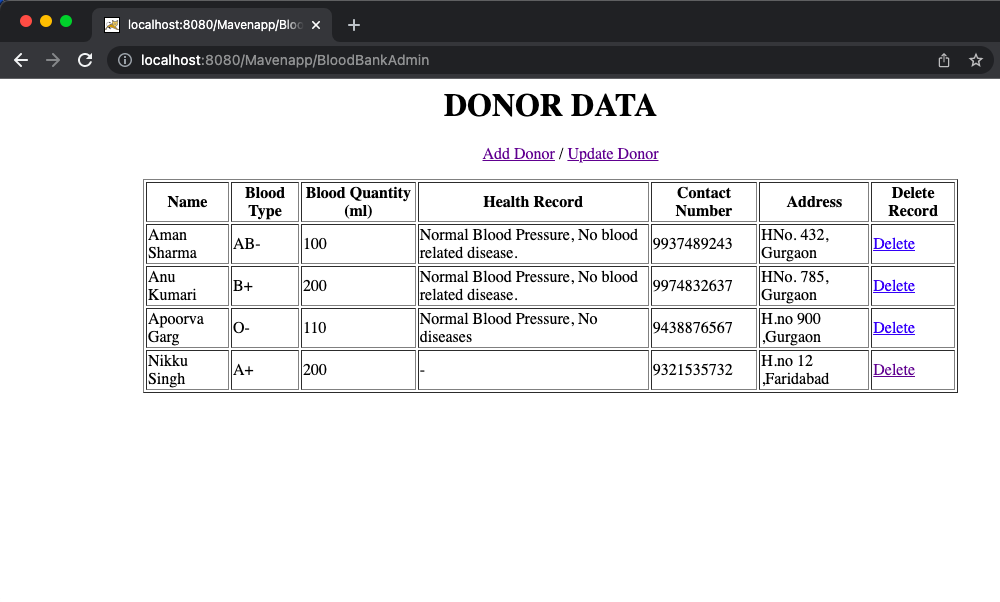
To log in as admin, click ”Admin”:

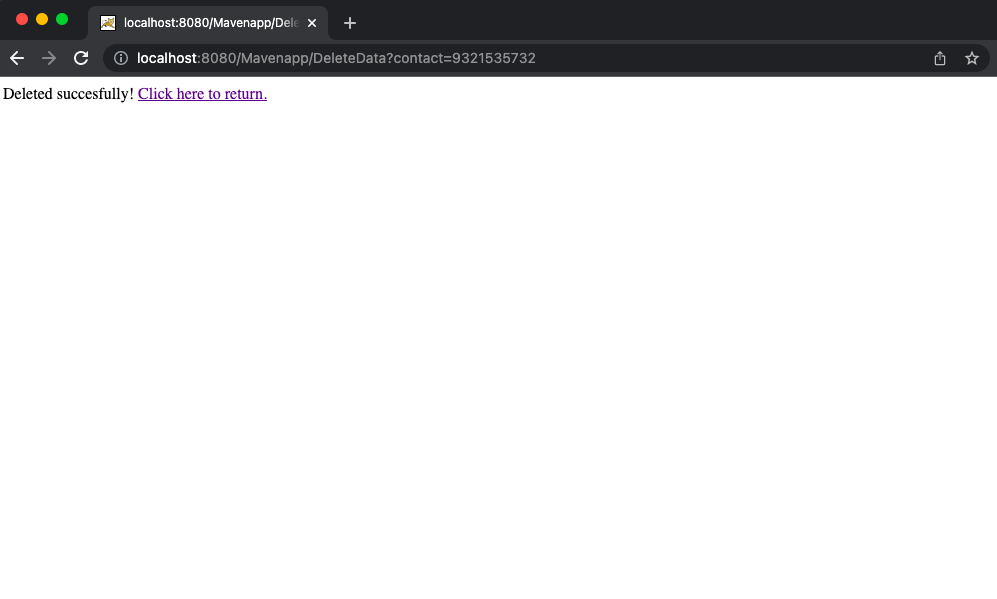
Enter the credentials and click ”Submit”:

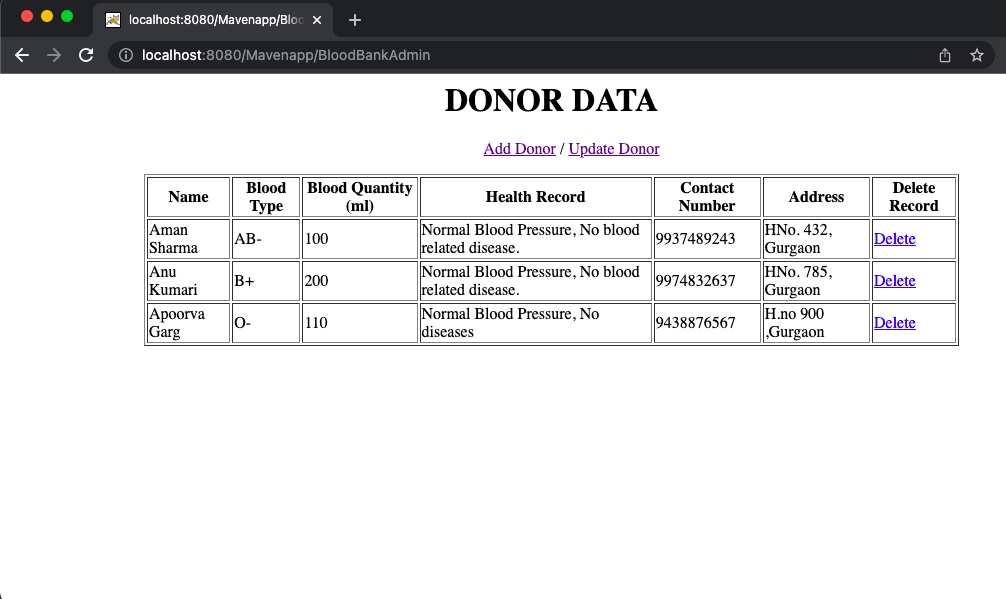
Press ”Click here to Continue” to move to next page:

The Donor’s data has been displayed to the admin.

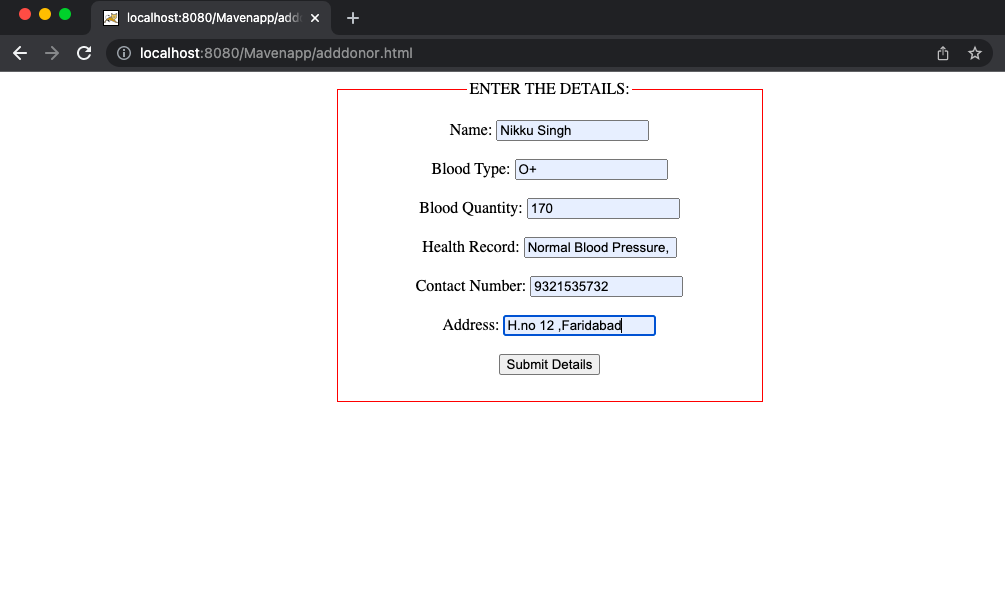
To delete a record click “Delete” for the respective row:

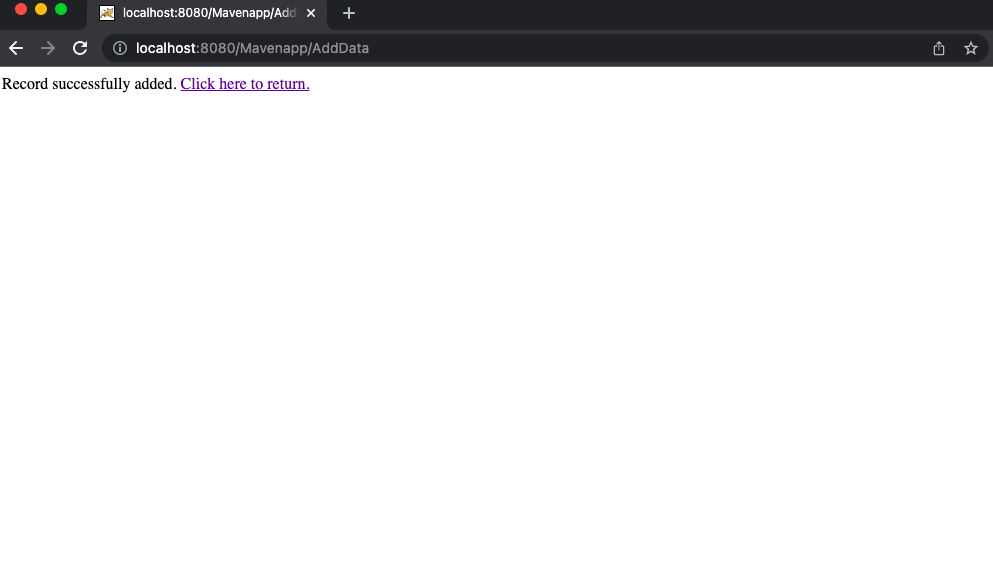
Click on ”Click here to return” to display modified records.

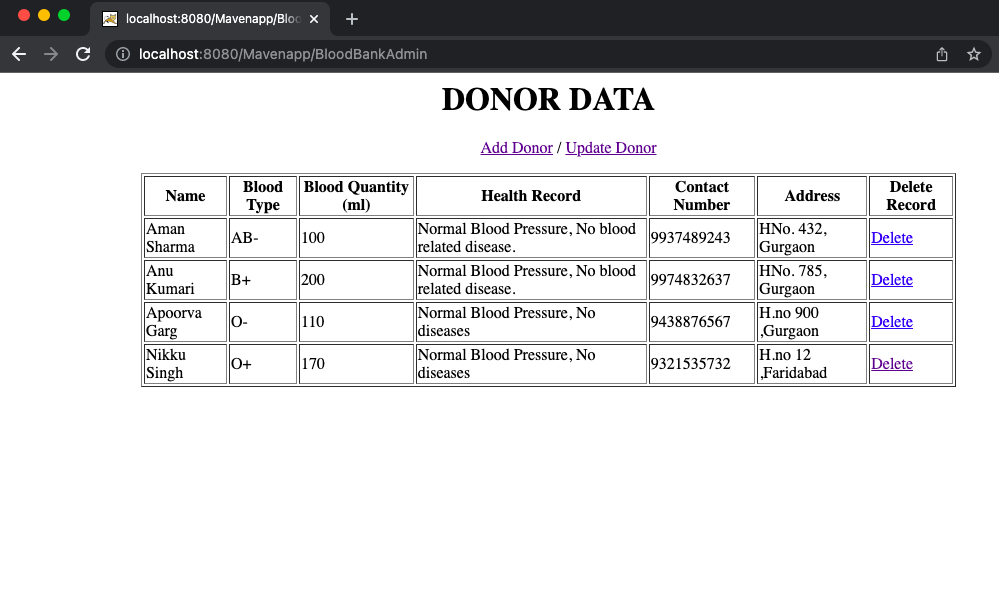
After deletion:



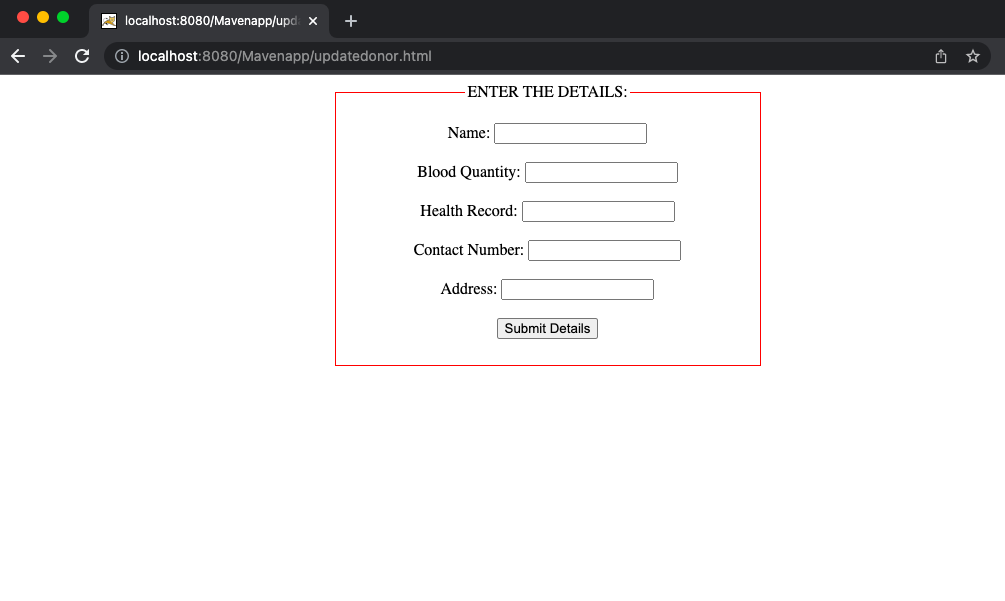
To add data click on ”Add Donor” and then enter the credentials.

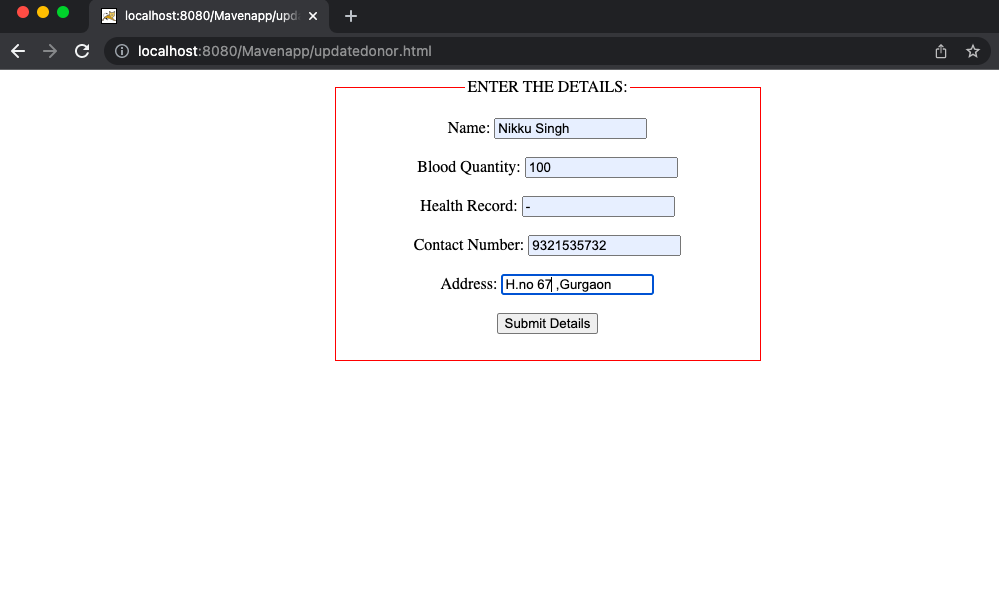
Click on ”Click here to return” to display modified records.

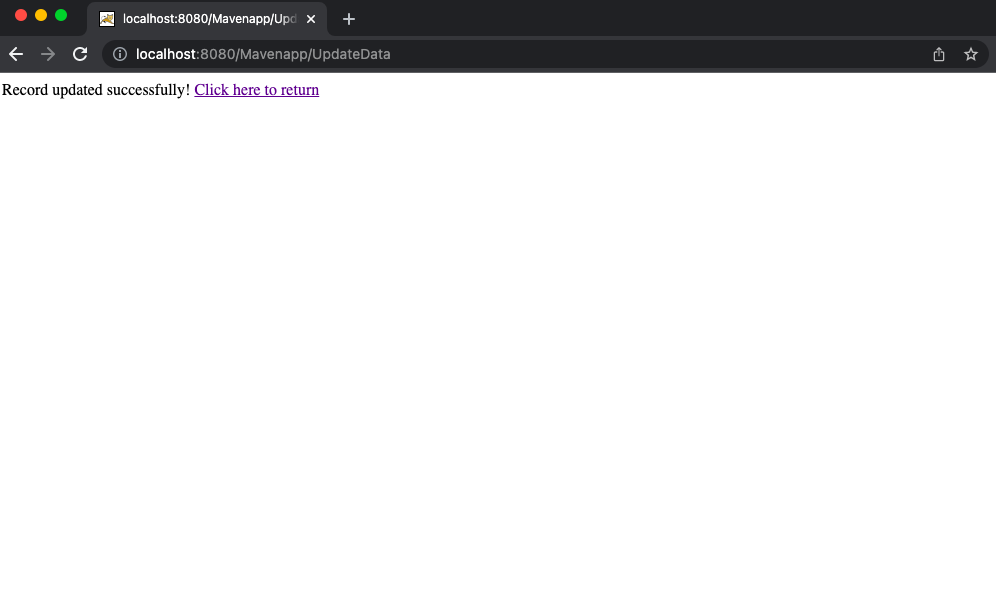
To update a record click on ”Update Donor” :



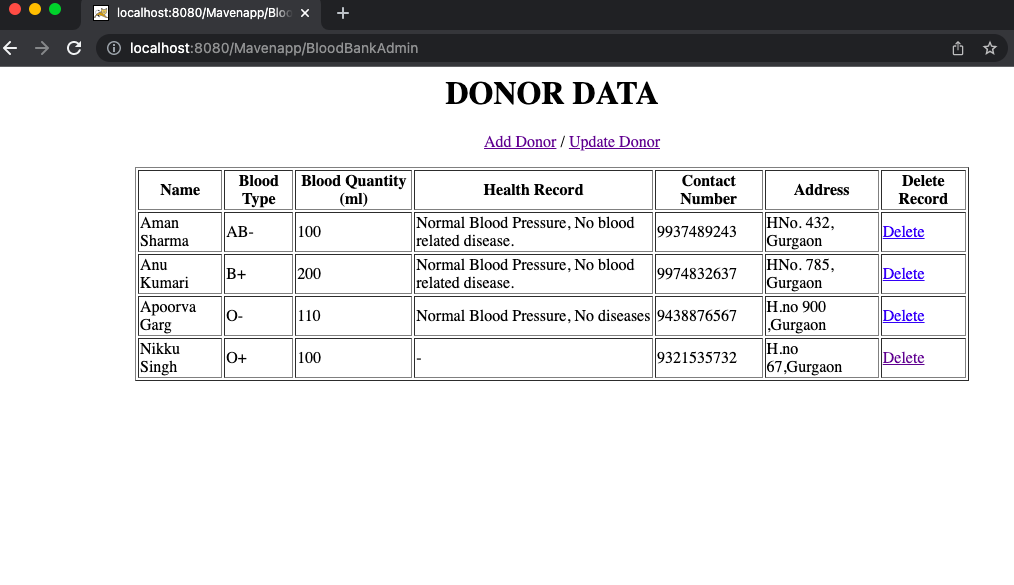
Enter the credentials:

Click on ”Submit Details”:

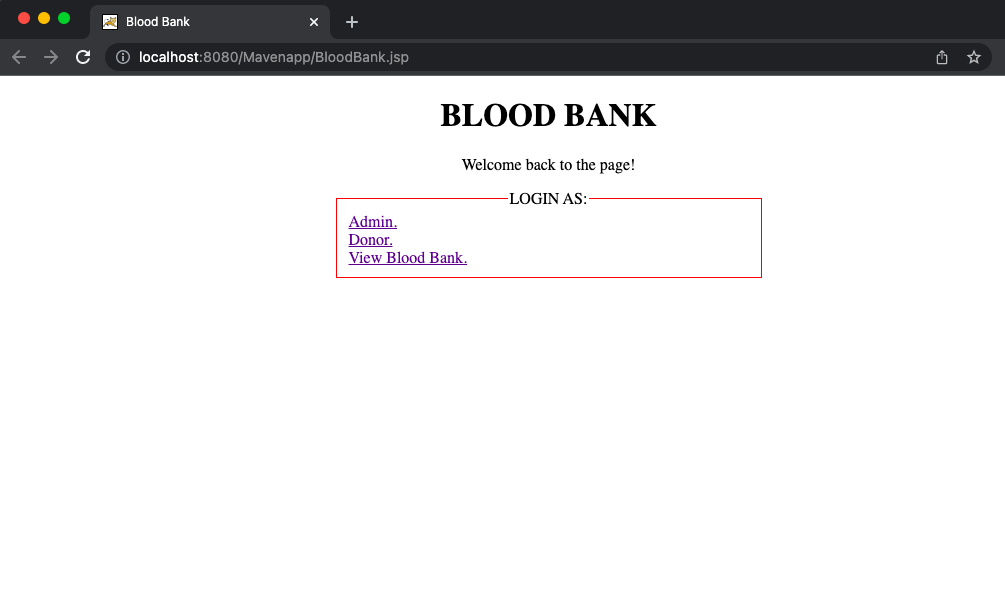
Click on ”Click here to return” to display modified records.

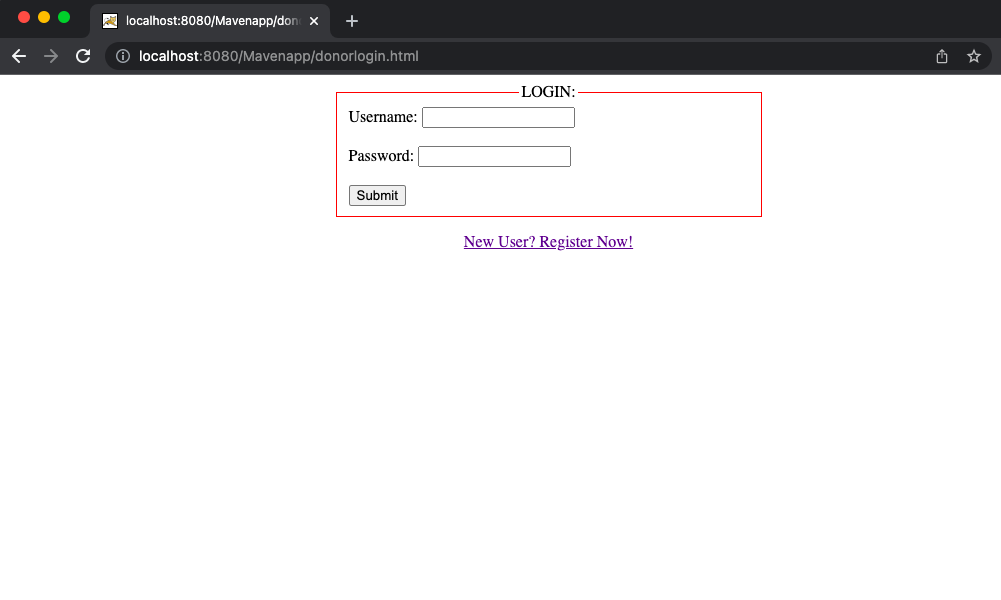


Updated records:

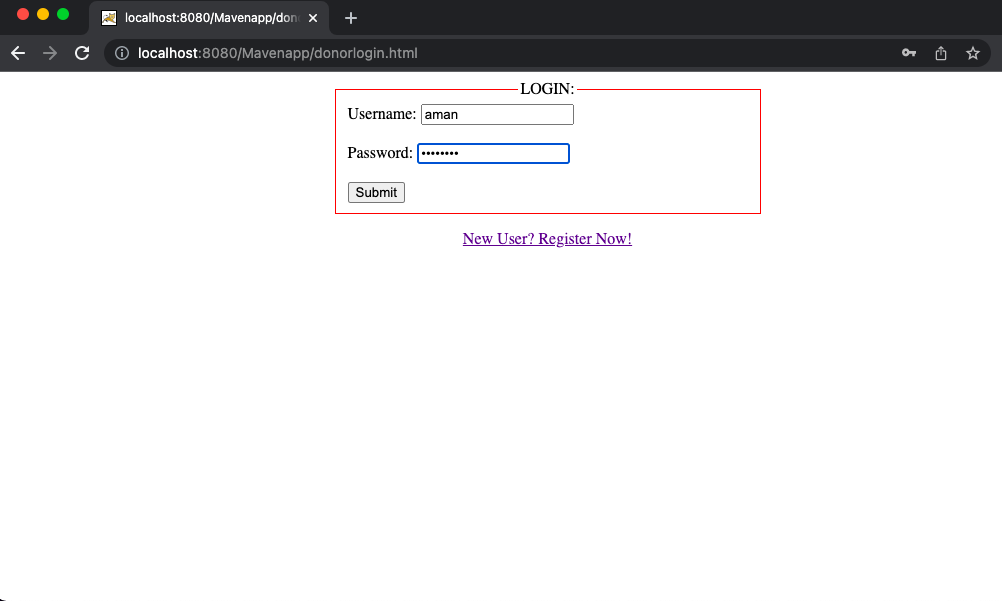
------------------------------------------------------------------------------------------------------------------------------------------

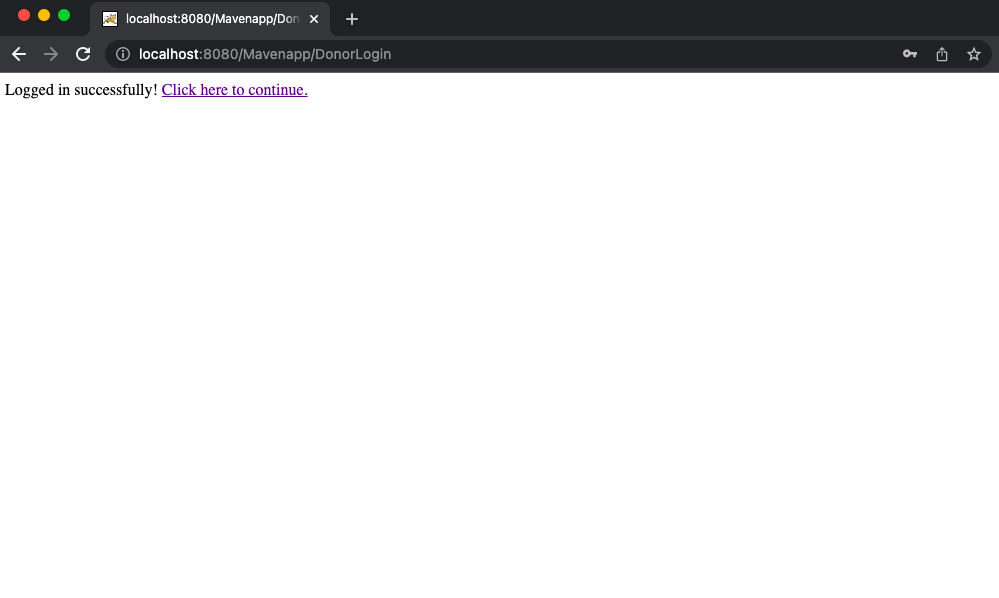
To log in as Donor click “Donor”:

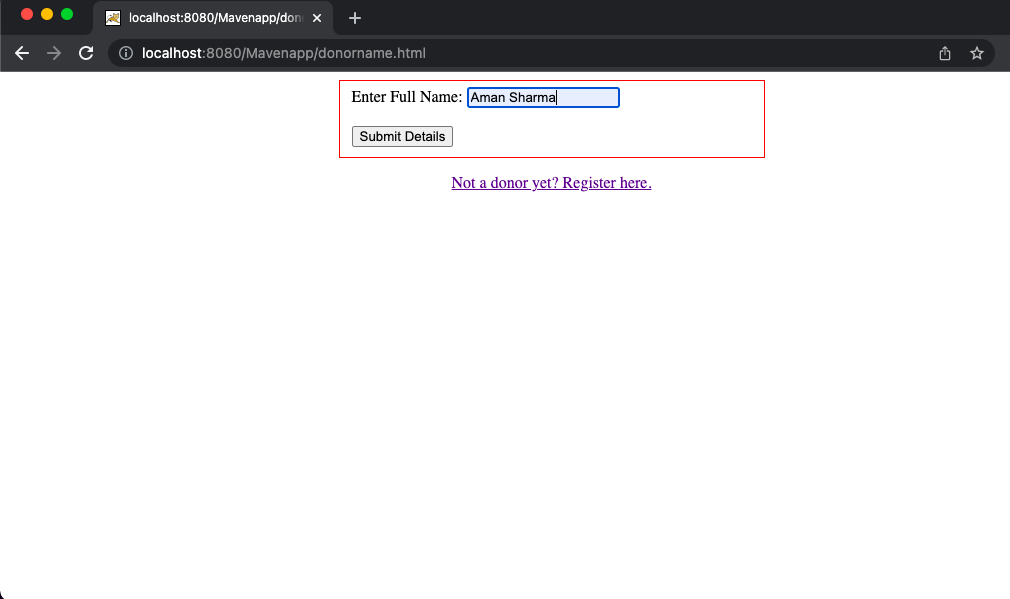
Enter the credentials:

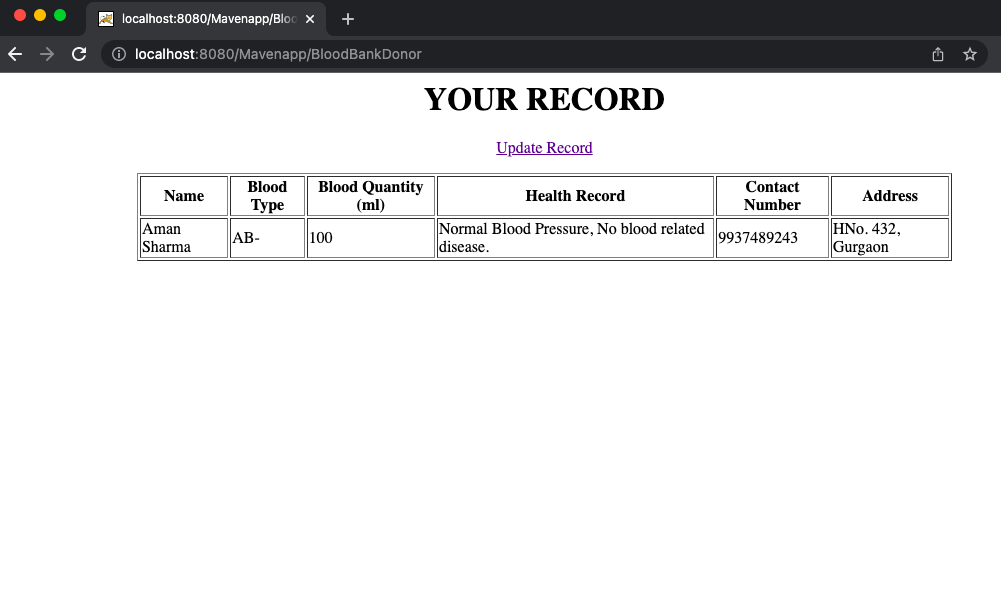


Click on ”Submit”:

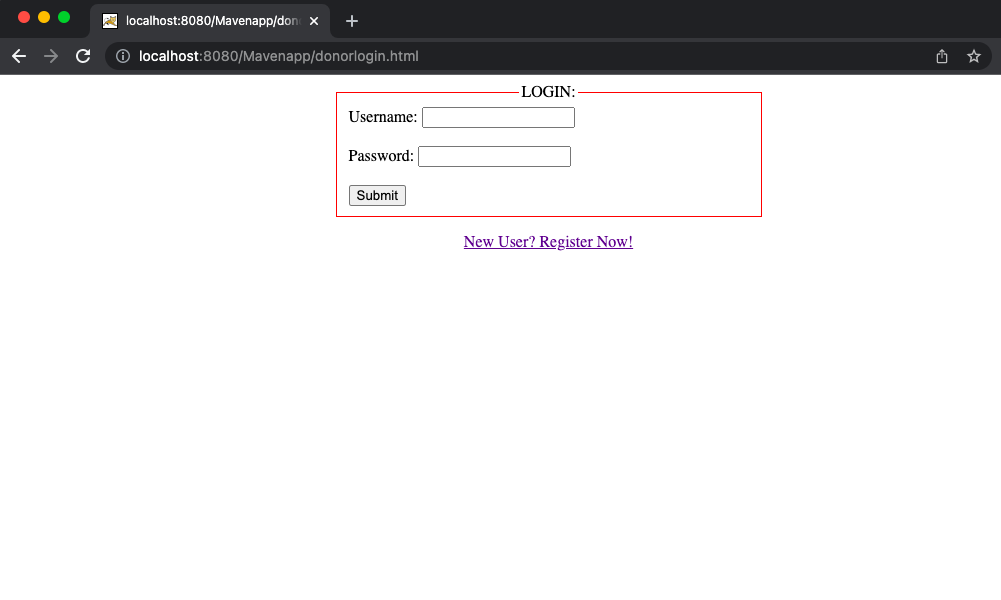
After successful login click on ”Click here to continue” to move to next page.

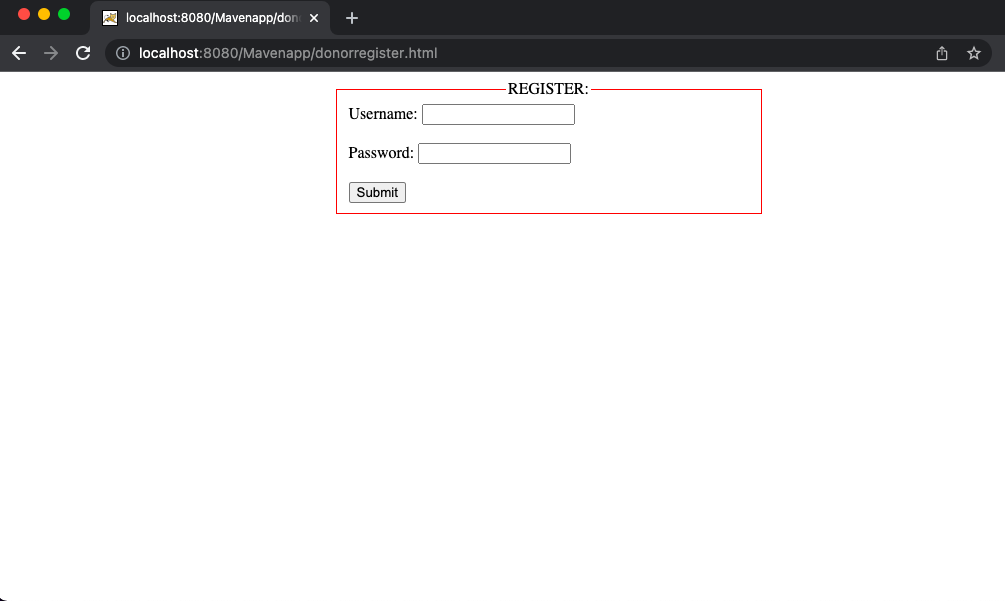
Enter Donor’s full name to get their record:

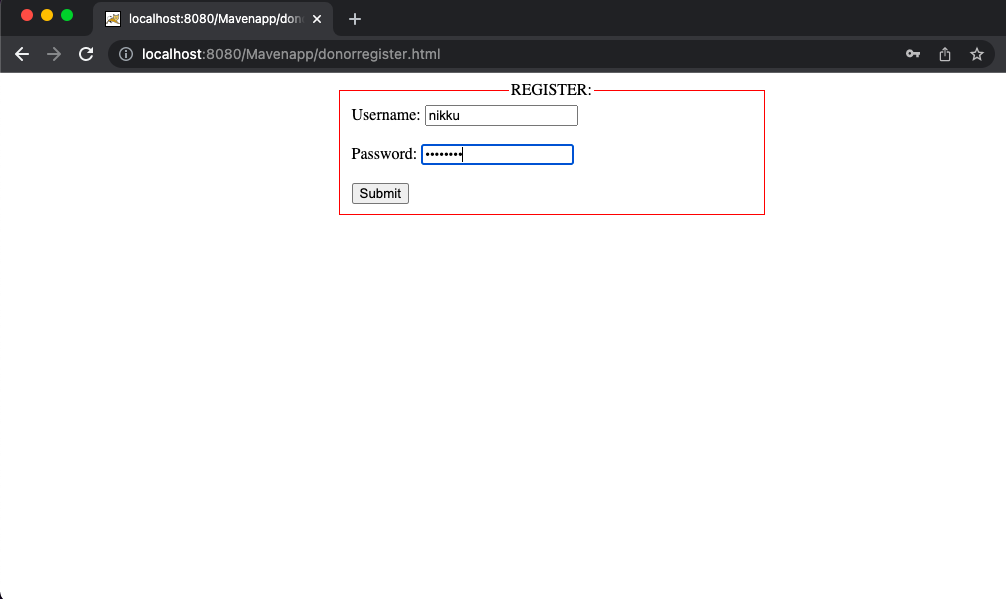
The record has been displayed.

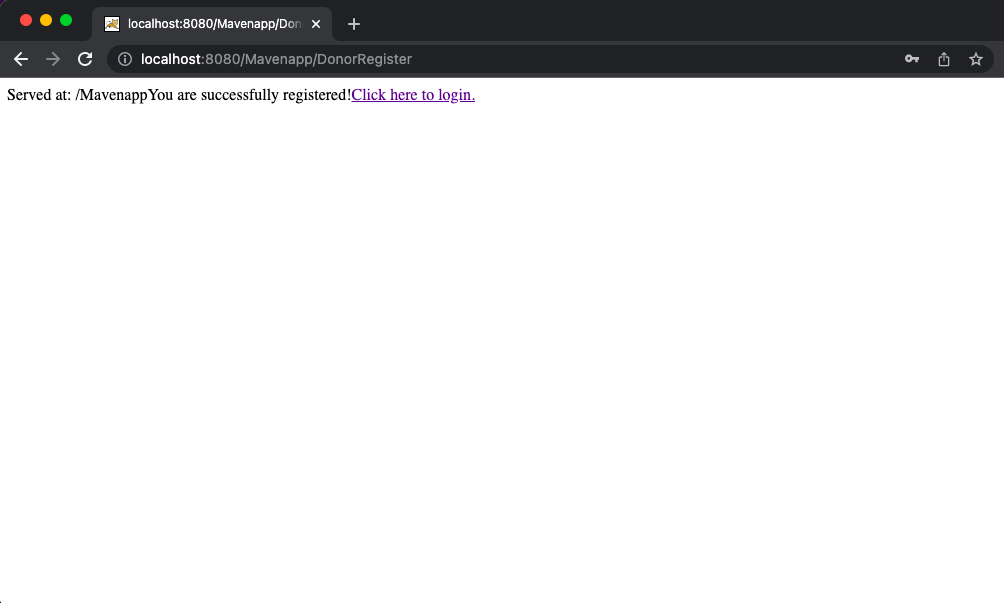


To register as a new donor click on ”New User?Register Now!”:

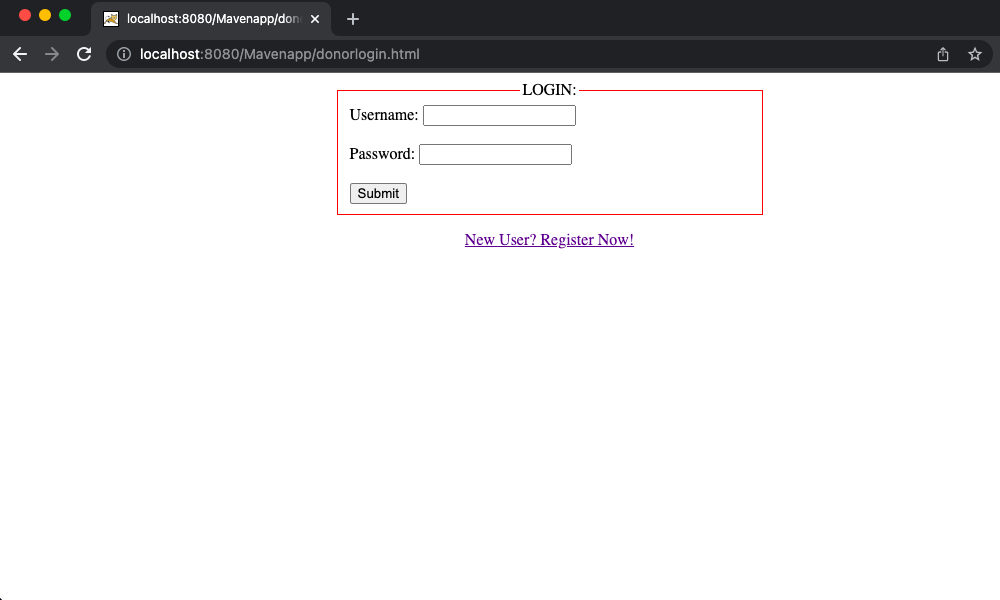
Enter the username and password according to your choice:

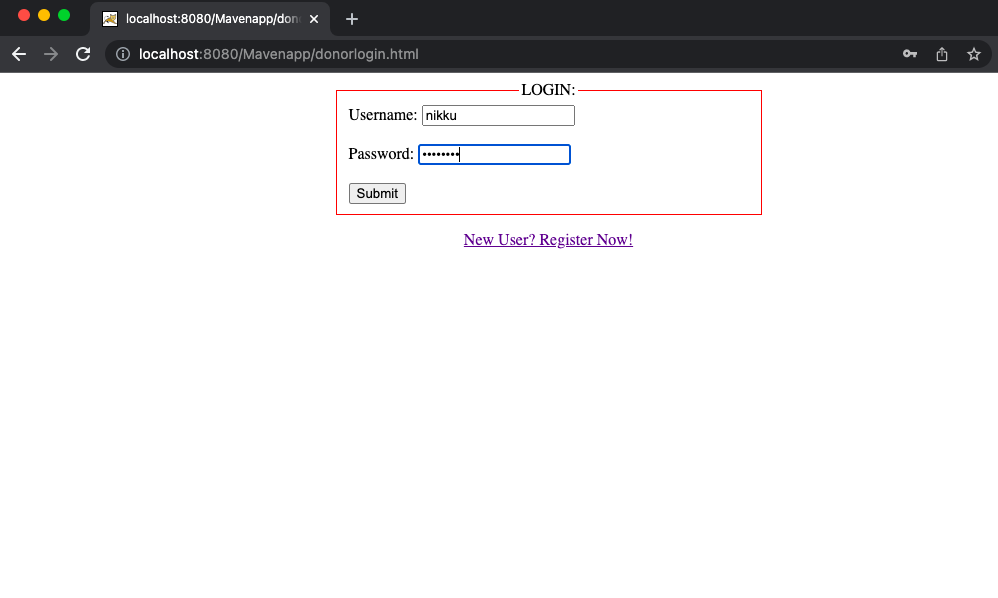
Click on ”Submit”:

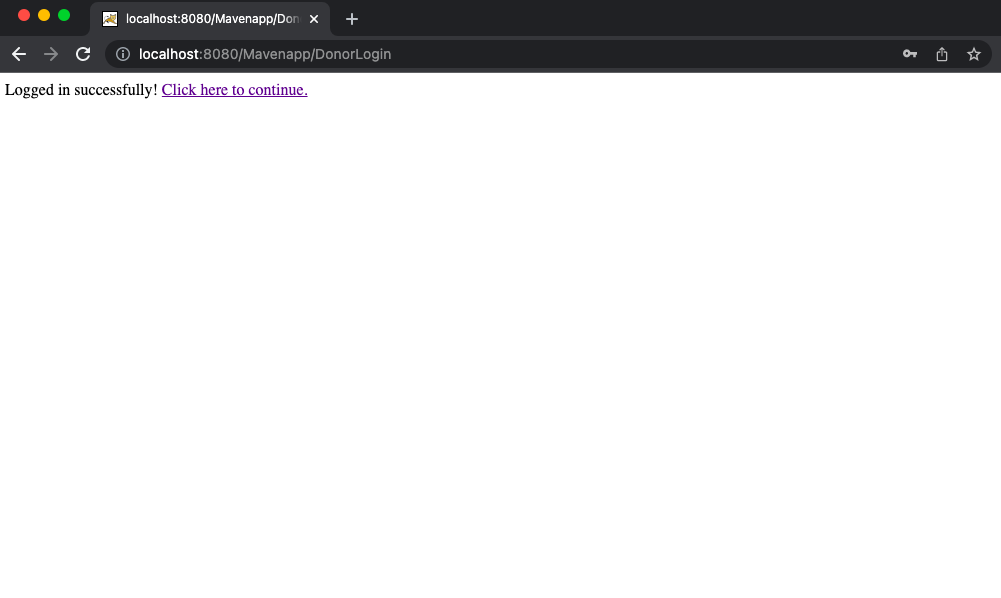
After successful registration click on ”Click here to login”:

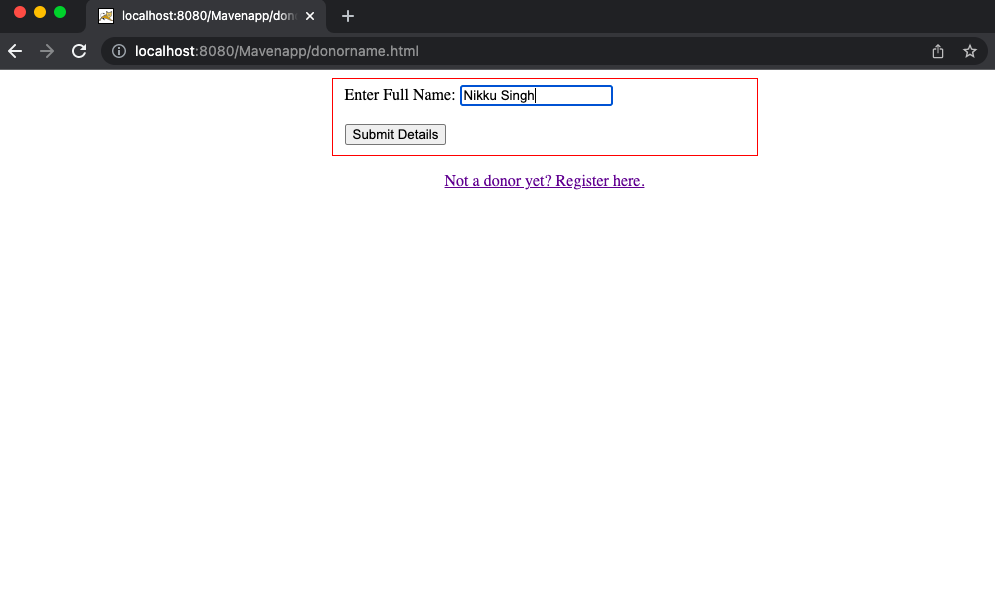


Now enter the credentials you used for registration:

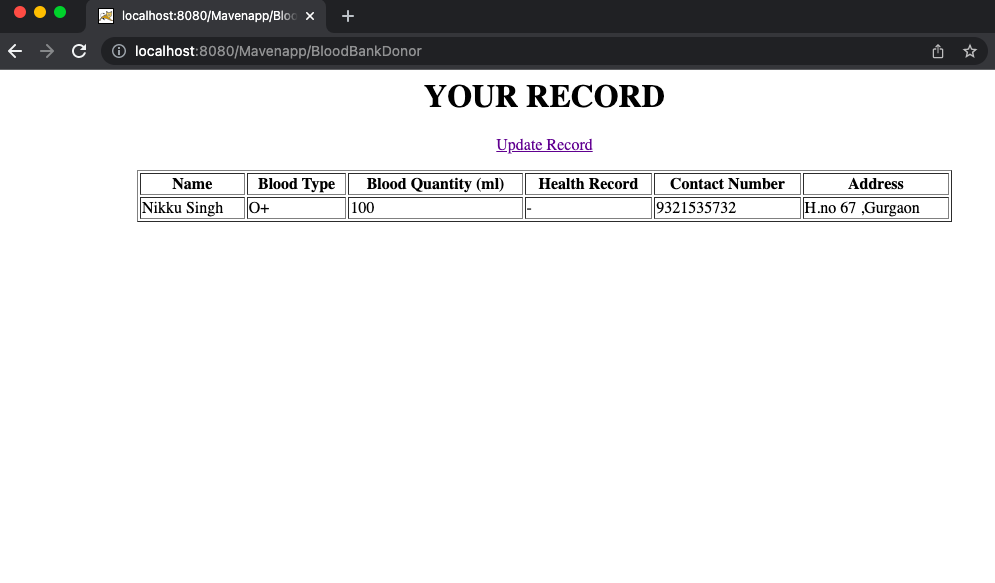
Click on ”Submit”:

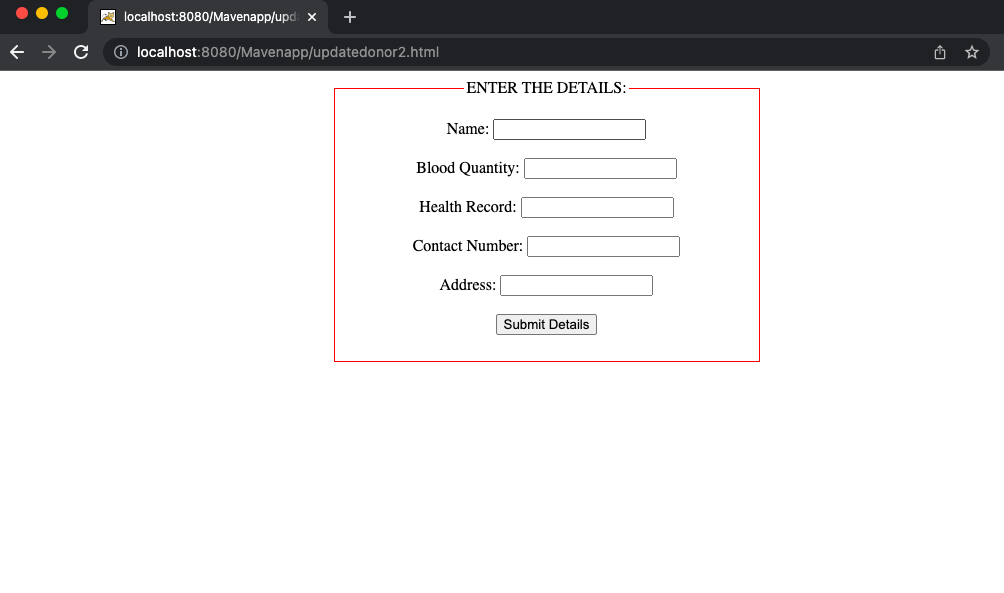
After successful login click on ”Click here to continue” to move to next page.

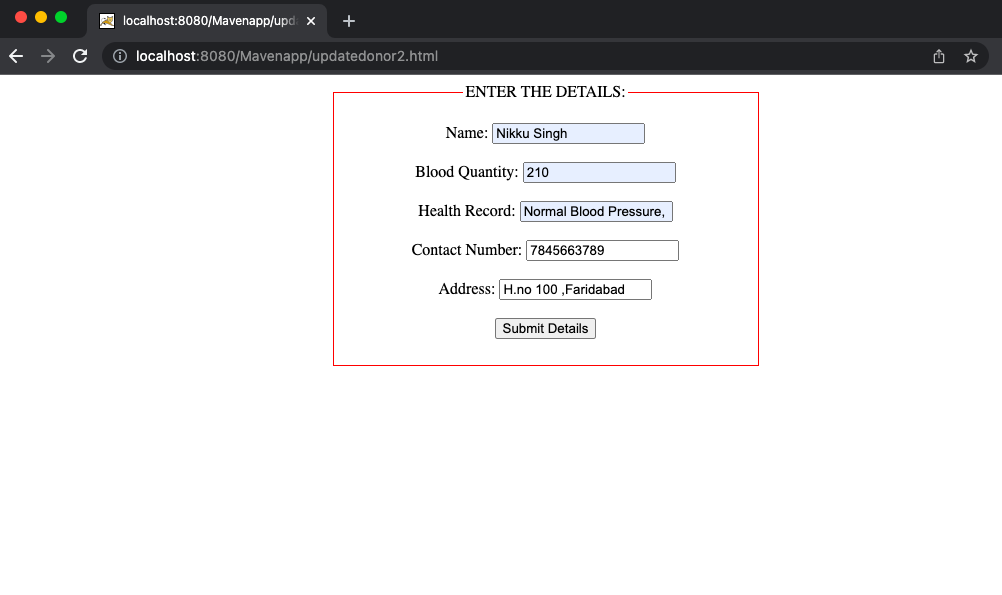
Enter Donor’s full name to get their record:



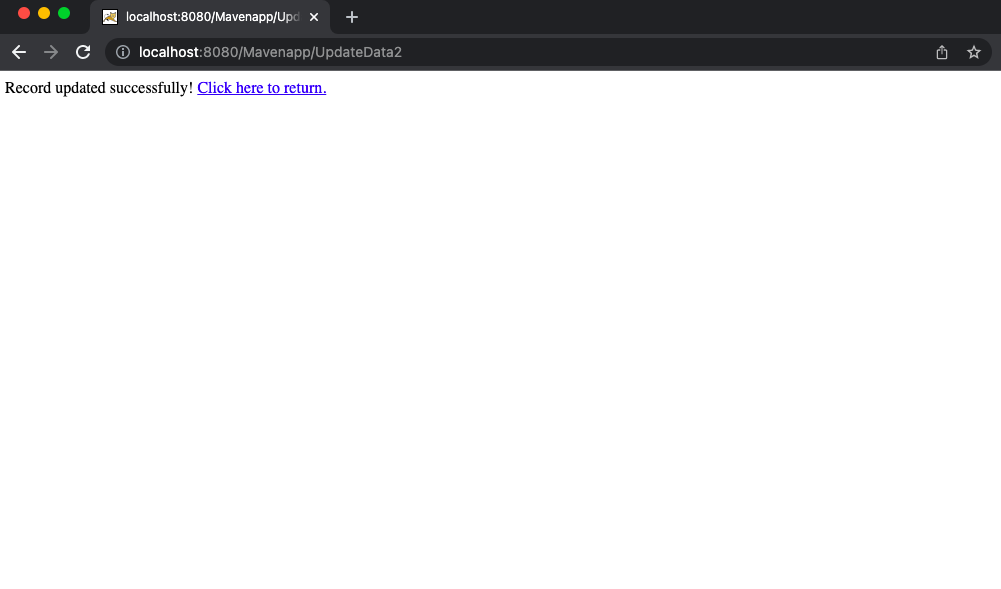
The record has been displayed:

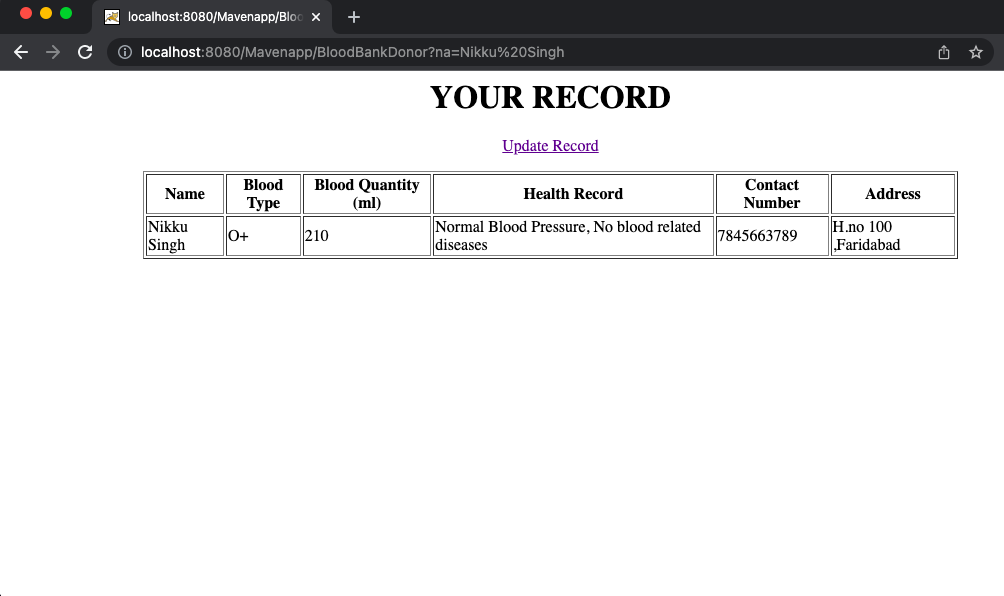
To update any record click “Update Record” and then enter the credentials:

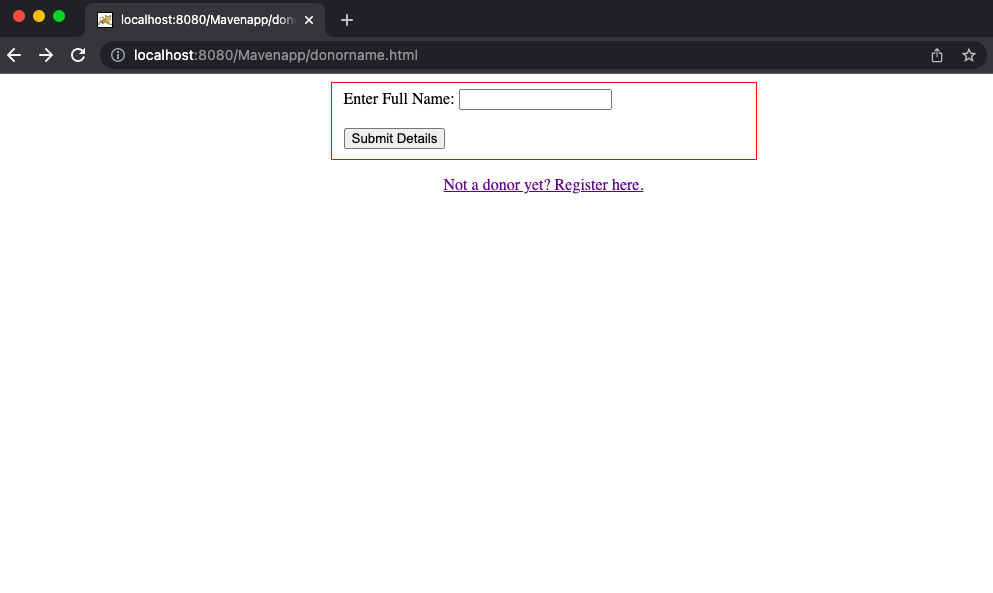
Press ”Submit Details”:

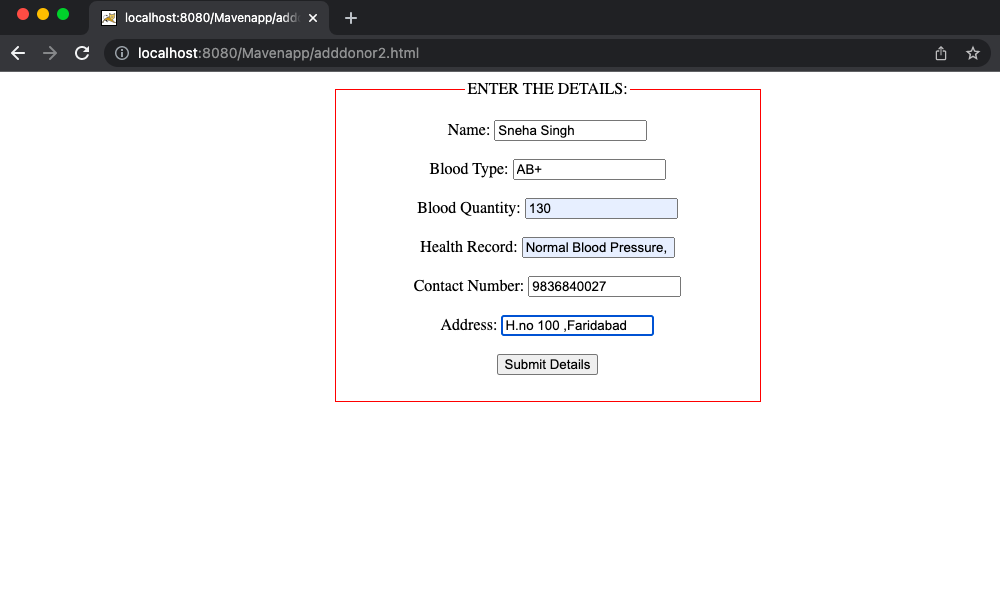


Click on ”Click here to return” to display modified records.

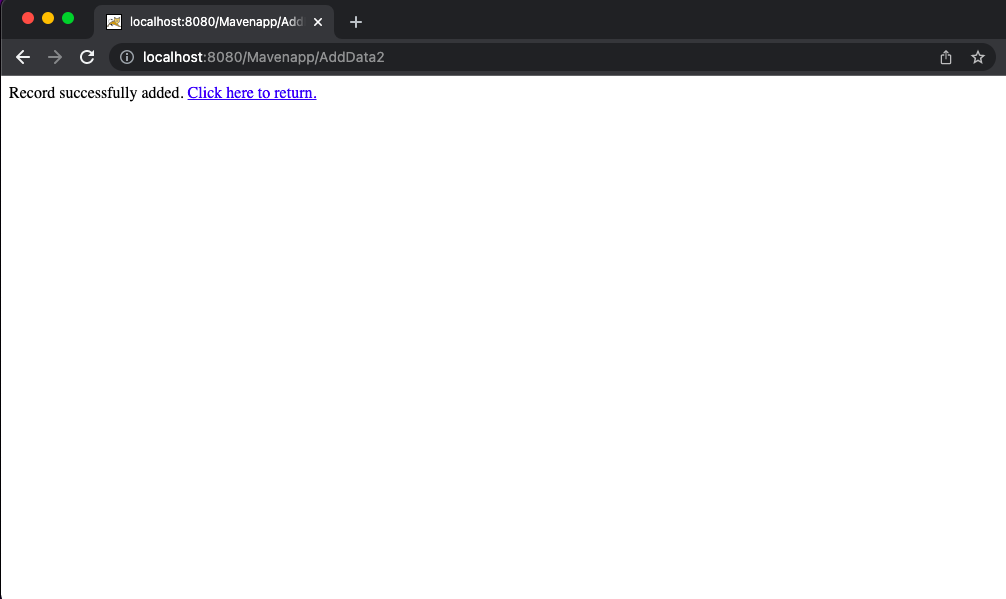
Updated record:

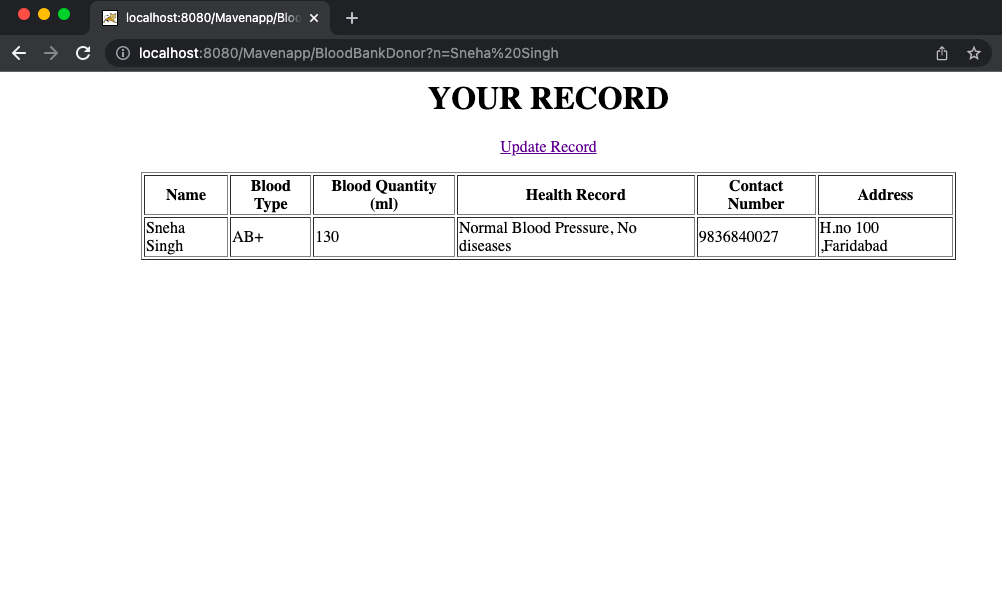
To add a new donor click on ”Not a donor yet?Register here.”:

Enter the details and click on ”Submit Details”:

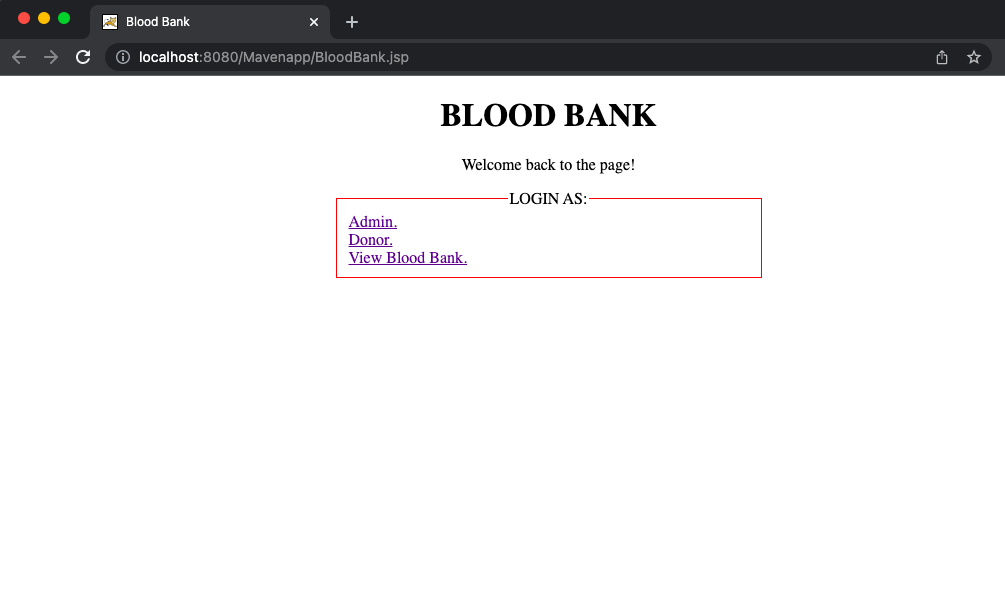


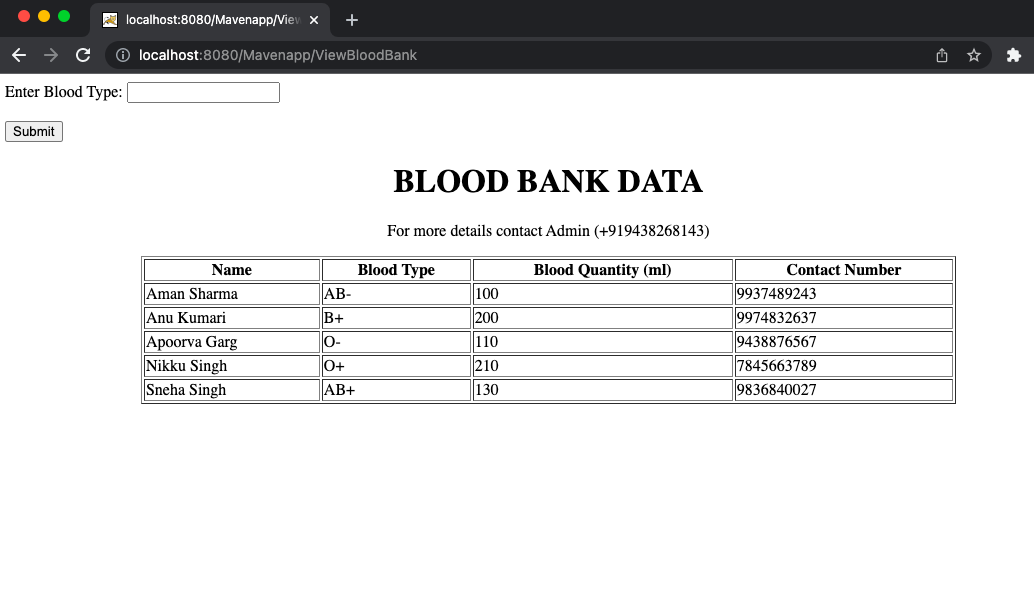
Click on ”Click here to return” to display modified records.

The Donor has been registered:

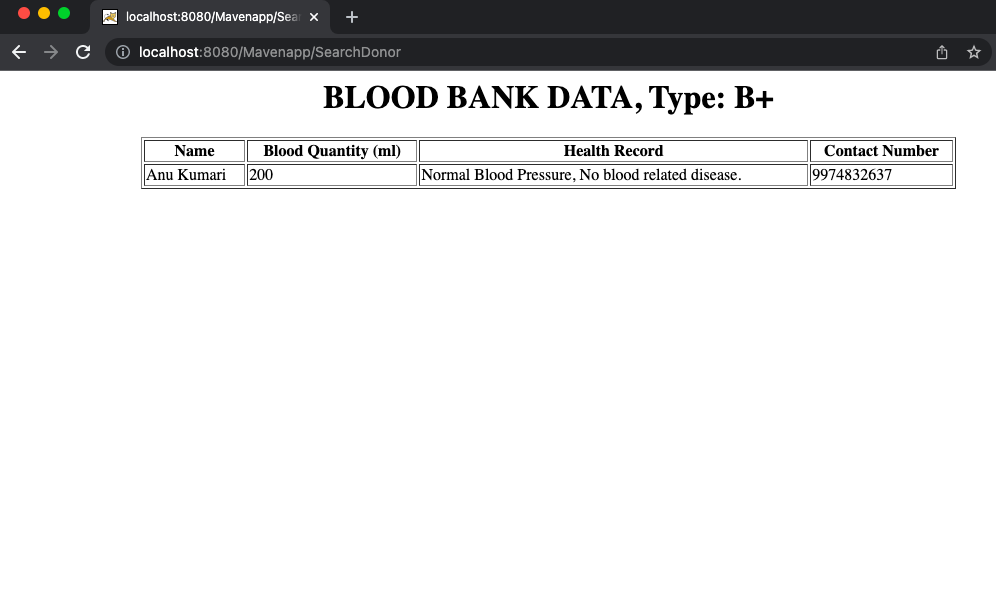
------------------------------------------------------------------------------------------------------------------------------------------

To view available donors, click on “View Blood Bank”:

To search by any specific blood type, enter the Blood type and click on” Submit”:



The available Donor details have been displayed according to the specific blood type required:



**Conclusion and Future Scope:**

With this project, we were able to implement the already taught theoretical concepts thus making us more competent as computer science engineers. The project from a personal point of view also helped us in understanding various aspects of project development. Some of them are planning that goes into implementing a project, the importance of proper planning and an organized methodology and the key element of team spirit and coordination in a successful project.

Talking about the future scope of this project, this software application helps build a way that suits all types of blood banks in future. Extraction of donor’s details will be extremely helpful at the time of emergency. All the time the network facilities cannot be used. This time donor request does not reach in proper time; this can be avoided through adding some message sending procedure which will help to find proper blood donor in time. This will provide availability of blood in time.