

SSN College of Engineering,
Kalavakkam Department of Computer
Science and Engineering VI Semester
- CSE 'C'
UCS1611 INTERNET PROGRAMMING LAB

Exercise 4: Java Servlets and MySQL

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Learning Objective:

1. Create a HTML file with following form fields:
 - a. Employee ID
 - b. Employee Name
 - c. Designation
 - d. Department
 - e. Basic Salary
 - f. Phone Number
 - g. Address
 - h. Date of Birth
 - i. Gender
 - j. Marital Status
 - k. Submit (Button, onclick submit the form details to a servlet)
 - l. Reset (Button, onclick)

Write a servlet program which reads all form details, finds the gross pay based on basic pay and designation. The servlet returns all details (a-j, gross pay) in table format to the client.

.....

Code:

Index.html

```
<!DOCTYPE html>
<html lang="en">

<head>
<meta charset="UTF-8" />
<meta http-equiv="X-UA-Compatible" content="IE=edge" />
<meta name="viewport" content="width=device-width, initial-
scale=1.0" />
<title>Employee form</title>
<style>
div.form {
    display: block;
    text-align: center;
}

form {
    display: inline-block;
    margin-left: auto;
    margin-right: auto;
    text-align: left;
}

label,
input {
    text-align: center;
}
</style>
</head>

<body style="background-color: cyan">
<div class="form">
<form name="Form1" action="http://localhost:8080/project1/GetMtd">
    <h2 style="text-align: center">Employee Form</h2>
    <label for="empid">Employee ID:</label><br />
    <input type="text" id="empid" name="empid" /><br />
    <br />
    <label for="empname">Employee Name:</label><br />
    <input type="text" id="empname" name="empname" /><br />
    <br />
    <label for="designation">Designation:</label><br />
    <select name="designation" id="designation">
    <option value="">-Select Designation-</option>
    <option value="Trainee">Trainee</option>
    <option value="Junior developer">Junior developer</option>
```

```

    <option value="Senior developer">Senior developer</option>
    <option value="Manager">Manager</option>
</select>
    <br /><br />
    <label for="department">Department:</label><br />
    <input type="radio" id="Software" name="department" value="Softw
are" />
    <label for="Software">Software</label><br />
    <input type="radio" id="Hardware" name="department" value="Hardw
are" />
    <label for="Hardware">Hardware</label><br />
    <input type="radio" id="HR" name="department" value="HR" />
    <label for="HR">HR</label><br /><br />
    <label for="Basic">Basic Salary (between 10,000 and 5,00,000):</
label
><br />
<input type="number" id="Basic" name="Basic" min="10000" max="500000
" />
<br /><br />
<label for="phone">Phone number:</label><br />
    <input type="tel" id="phone" name="phone" placeholder="123-456-
6789" pattern="[0-9]{3}-[0-9]{3}-[0-9]{4}" required /><br /><br />
    <label for="address">Residential Address:</label><br />
    <textarea id="address" name="address" rows="4" cols="50"></textare
a>
    <br />
    <br />
    <label for="dob">Date of Birth:</label>
    <input type="date" id="dob" name="dob" />
    <br />
    <br />
    <label for="gender">Gender:</label><br />
    <input type="radio" id="male" name="gender" value="male" />
    <label for="male">Male</label><br />
    <input type="radio" id="female" name="gender" value="female" />
    <label for="female">Female</label><br />
    <input type="radio" id="other" name="gender" value="other" />
    <label for="other">Other</label>
    <br />
    <br />
    <label for="marital_status">Marital Status:</label><br />
    <select name="marital_status" id="marital_status">
<option value="">-Select Marital Status-</option>
<option value="Single">Single</option>
<option value="Married">Married</option>
<option value="Widowed">Widowed</option>
<option value="Separated">Separated</option>
<option value="Divorced">Divorced</option>

```

```

</select>
    <br />
    <br />
    <input type="submit" value="Submit" />
    <input type="reset" value="Reset" />
</form>
</div>
</body>

</html>

```

GetServlet.java:

```

import java.io.*;
import jakarta.servlet.*;
import jakarta.servlet.http.*;
public class GetServlet extends HttpServlet {
public void doGet(HttpServletRequest request, HttpServletResponse re
sponse)
throws ServletException, IOException {
    String empid = request.getParameter("empid");
    String empname = request.getParameter("empname");
    String designation = request.getParameter("designation");
    String department = request.getParameter("department");
    String basic = request.getParameter("Basic");
    String tele = request.getParameter("phone");
    String address = request.getParameter("address");
    String dob = request.getParameter("dob");
    String gender = request.getParameter("gender");
    String marital = request.getParameter("marital_status");
    int bs = Integer.parseInt(basic);
    double gs=0;
    if(designation.equals("Trainee")){
        gs=1.05*bs;
    }
    else if(designation.equals("Junior developer")){
        gs=1.1*bs;
    }
    else if(designation.equals("Senior developer")){
        gs=1.2*bs;
    }
    else if(designation.equals("Manager")){
        gs=1.3*bs;
    }
    else{
        gs=bs;
    }
}
}

```

```

        response.setContentType("text/html");
        PrintWriter pw = response.getWriter();
        String cssTag="<link rel='stylesheet' type='text/css' href='css/
style.css'>";
        pw.println("<html>");
        pw.println("<head><title>Title Name</title>"+cssTag+"</head>");
        pw.println("<body>");
        pw.println("<div>");
        pw.println("<h1>Form response</h1><br><br>");
        pw.println("<table id='patient'>");
        pw.println("<tr>");
        pw.println("<th style='border: 2px solid black'> Employee ID </t
h>");
        pw.println("<td style='border: 2px solid black'>" + empid + "</t
d>");
        pw.println("</tr>");
        pw.println("<tr>");
        pw.println("<th style='border: 2px solid black'> Name </th>");
        pw.println("<td style='border: 2px solid black'>" + empname + "<
/td>");
        pw.println("</tr>");
        pw.println("<tr>");
        pw.println("<th style='border: 2px solid black'> Designation </
th>");
        pw.println("<td style='border: 2px solid black'>" + designation
+ "</td>");
        pw.println("</tr>");
        pw.println("<tr>");
        pw.println("<th style='border: 2px solid black'> Department </t
h>");
        pw.println("<td style='border: 2px solid black'>" + department +
"</td>");
        pw.println("</tr>");
        pw.println("<tr>");
        pw.println("<th style='border: 2px solid black'> Basic Salary <
/th>");
        pw.println("<td style='border: 2px solid black'>" + basic + "</t
d>");
        pw.println("</tr>");
        pw.println("<tr>");
        pw.println("<th style='border: 2px solid black'> Gross Salary <
/th>");
        pw.println("<td style='border: 2px solid black'>" + gs + "</td>
");
        pw.println("</tr>");
        pw.println("<tr>");
        pw.println("<th style='border: 2px solid black'> Phone Number <
/th>");
        pw.println("<td style='border: 2px solid black'>" + tele + "</td

```

```

>");
    pw.println("</tr>");
    pw.println("<tr>");
    pw.println("<th style='border: 2px solid black'> Address </th>"
);
    pw.println("<td style='border: 2px solid black'>" + address + "<
/td>");
    pw.println("</tr>");
    pw.println("<tr>");
    pw.println("<th style='border: 2px solid black'> Date of Birth
</th>");
    pw.println("<td style='border: 2px solid black'>" + dob + "</td>"
);
    pw.println("</tr>");
    pw.println("<tr>");
    pw.println("<th style='border: 2px solid black'> Gender </th>");
    pw.println("<td style='border: 2px solid black'>" + gender + "</
td>");
    pw.println("</tr>");
    pw.println("<tr>");
    pw.println("<th style='border: 2px solid black'> Marital Status
</th>");
    pw.println("<td style='border: 2px solid black'>" + marital + "<
/td>");
    pw.println("</tr>");

    pw.println("</table>");
    pw.println("</div></body></html>");
    pw.close();
}
}

```

Web.xml:

```

<web-app>
<servlet>
<servlet-name>GetMtd</servlet-name>
<servlet-class>GetServlet</servlet-class>
</servlet>
<servlet-mapping>
<servlet-name>GetMtd</servlet-name>
<url-pattern>/GetMtd</url-pattern>
</servlet-mapping>
</web-app>

```

Style.css:

```
body {
    background-color: yellow;
    text-align: center;
}

div {
    display: inline-block;
    margin-left: auto;
    margin-right: auto;
    text-align: left;
}

#patient {
    font-family: Arial, Helvetica, sans-serif;
    border-collapse: collapse;
    width: 100%;
}

#patient td,
#patient th {
    border: 1px solid #ddd;
    padding: 8px;
}

#patient tr:nth-child(even) {
    background-color: #f2f2f2;
}

#patient tr:nth-child(odd) {
    background-color: greenyellow;
}

#patient tr:hover {
    background-color: cyan;
}

#patient th {
    padding-top: 12px;
    padding-bottom: 12px;
    text-align: left;
    background-color: #4caf50;
    color: white;
}
```

.....

Output Screenshots:

Employee form

localhost:8080/project1/

Employee Form

Employee ID:

Employee Name:

Designation:

Department:
☐ Software
☐ Hardware
☒ HR

Basic Salary (between 10,000 and 5,00,000):

Phone number:

Residential Address:

Date of Birth:

Gender:
☒ Male
☐ Female
☐ Other

Marital Status:

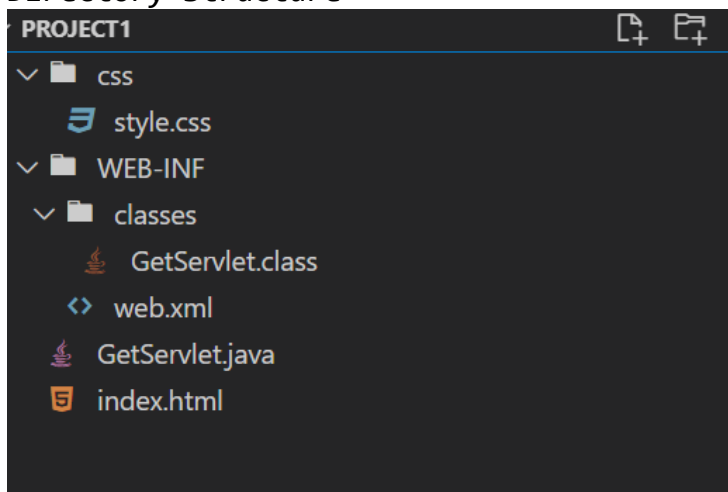
Title Name

localhost:8080/project1/Get...

Form response

Employee ID	123
Name	Vignesh B
Designation	Manager
Department	HR
Basic Salary	200000
Gross Salary	260000.0
Phone Number	123-456-2345
Address	No.245,VGP Nagar
Date of Birth	2021-03-25
Gender	male
Marital Status	Single

Directory Structure



.....

Question 1. 3b.

Learning Objective:

Develop a Patient Management System (PMS) in a Hospital that maintains the patient records.

Specifications:

- a. Admin only can access the patient records.
- b. Admin has to authenticate himself with the credentials to access the patient details.
- c. The first page is the login page (login.html) where the admin should enter the credentials .
- d. If login fails, display an alert “Login Failed, enter the correct details”, clear the username and password textbox and focus the control back to the username of login.html
- e. Perform the authentication using JavaScript, use hardcoded username and password in login.html
- f. On successful login, it should be redirected to homepage (homepage.html) of PMS.
- g. The homepage.html should display the following:
- h. Clicking the links should invoke its corresponding html file from where the information is submitted to the corresponding Servlet. For example, The html file for Delete Record is:
- i. On Submit, it should invoke DeleteServlet. The DeleteServlet should delete the record from the Database and displays “Record Deleted” in a new webpage with a view button as follows:
- j. When “View” button is clicked it invokes the “ViewServlet” to display all the records in the database.
- k. Similarly, perform ADD, UPDATE, VIEW and SEARCH using **corresponding html and Servlet**
- l. UPDATE is invoked if phone number or Address of the patient is changed
- m. SEARCH for particular patient based on Patient ID
- n. After each operation ViewServlet should be invoked to view the changes in the Database

Database Name:Patient_Details

Table Schema:Name, age, ID, gender, address, marital status, Date of Visit

.....

Program:

Index.html :

```
<!DOCTYPE html>
<html>

<head>
<title>Patient Management System</title>
<link rel="stylesheet" type="text/css" href="style/style1.css" />
</head>

<body style="background-color: cyan">
<div class="form">
<h1>Login Page</h1>
<br />
<br />
<form onsubmit="return validate();" method="POST" action="HomePage">
<label for="uname"><b>Username: </b></label>
<input type="text" placeholder="Enter Username" id="uname" name="uname" required />
<br />
<br />
<label for="pass"><b>Password: </b></label>
<input type="password" placeholder="Enter Password" id="pass" name="pass" required />
<br />
<br />
<button type="submit">Login</button>
<button type="reset">Reset</button>
</form>
</div>
<script type="text/javascript">
function validate() {
var uname = document.getElementById("uname");
var pass = document.getElementById("pass");

if (uname.value == "admin" && pass.value == "ssn") {
return true;
} else {
alert("Invalid Username or Password");
document.getElementById("uname").value = "";
document.getElementById("pass").value = "";
document.getElementById("uname").focus();
return false;
}
}
</script>
</body>
```

```
</html>
```

ViewRecord.html:

```
<!DOCTYPE html>
<html>

<head>
<title>PMS-View DB</title>
<link rel="stylesheet" type="text/css" href="style/style1.css" />
</head>

<body style="background-color: cyan">
<div class="form">
<h1>View DataBase</h1>
<br /><br />
<form method="POST" action="ViewDB">
<button type="submit">ViewDB</button>
</form>
</div>
</body>

</html>
```

Searchrecord.html:

```
<!DOCTYPE html>
<html>

<head>
<title>Patient Management System</title>
<link rel="stylesheet" type="text/css" href="style/style1.css" />
</head>

<body style="background-color: cyan">
<div class="form">
<h1>Search Record Form</h1>
<br />
<form method="POST" action="SearchRecord">
<label for="sid">Enter ID:</label>
<input type="text" id="sid" name="sid" /><br /><br />
<button type="submit">Search</button>
</form>
```

```
</div>
</body>

</html>
```

AddRecord.html:

```
<!DOCTYPE html>
<html>

<head>
<title>PMS - Add Record</title>
<link rel="stylesheet" type="text/css" href="style/style1.css" />
</head>

<body style="background-color: cyan">
<div class="form">
<h1>New record form</h1>
<form method="POST" action="AddRecord">
<br /><br />
<label for="name">Enter name: </label>
<input type="text" id="name" name="name" /><br /><br />
<label for="age">Enter Age: </label>
<input type="number" id="age" name="age" /><br /><br />
<label for="address">Enter Address:</label>
<input type="text" id="address" name="address" /><br /><br />
<label for="marital">Enter marital status:</label>
<input type="text" id="marital" name="marital" /><br /><br />
<label for="gender">Enter gender status:</label>
<input type="text" id="gender" name="gender" /><br /><br />
<label for="dov">Date of Visit:</label>
<input type="date" id="dov" name="dov" /><br /><br />
<input type="submit" value="Add Record" />
<button type="reset">Reset</button>
</form>
</div>
</body>

</html>
```

DeleteRecord.html:

```
<!DOCTYPE html>
```

```

<html>

<head>
<title>Patient Management System</title>
<link rel="stylesheet" type="text/css" href="style/style1.css" />
</head>

<body style="background-color: cyan">
<div class="form">
<h1>Delete Record Form</h1>
<form method="POST" action="DeleteRecord">
<label for="sid">Enter ID:</label>
<input type="text" id="sid" name="sid" /><br /><br />
<button type="submit">Delete</button>
</form>
</div>
</body>

</html>

```

UpdateRecord.html:

```

<!DOCTYPE html>
<html>
<head>
<title>Update Record</title>
<link rel="stylesheet" type="text/css" href="style/style1.css" />
</head>

<body style="background-color: cyan">
<div class="form">
<h1>Update Record Form</h1>
<br />
<form method="POST" action="UpdateRecord">
<label for="id">Enter ID:</label>
<input type="text" id="id" name="id" /><br /><br />
<label for="address">Enter Address:</label>
<input type="text" id="address" name="address" value="nc" /><br /><br />
<label for="dov">Date of Visit:</label>
<input type="date" id="dov" name="dov" value="1111-11-11" /><br /><br />
<input type="submit" value="Update Record" />
</form>
</div>

```

```
</body>
```

```
</html>
```

HomePage.java:

```
import jakarta.servlet.http.*;
import jakarta.servlet.*;
import java.io.*;

public class HomePage extends HttpServlet {
    public void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {
        response.setContentType("text/html");
        PrintWriter out = response.getWriter();
        String cssTag("<link rel='stylesheet' type='text/css' href='style/style.css'>");
        out.println("<html>");
        out.println("<head><title>PMS DB</title>"+cssTag+"</head>");
        out.println("<body>");
        out.println("<div>");
        out.println("<h1>Patient Details</h1><br>");
        out.println("<br><a href=\"http://localhost:8080/demo4/AddRecord.html\"> Add Record </a><br>");
        out.println("<br><a href=\"http://localhost:8080/demo4/UpdateRecord.html\"> Update Record </a><br>");
        out.println("<br><a href=\"http://localhost:8080/demo4/DeleteRecord.html\"> Delete Record </a><br>");
        out.println("<br> <a href=\"http://localhost:8080/demo4/SearchRecord.html\"> Search Record </a><br>");
        out.println("<br> <a href=\"http://localhost:8080/demo4/ViewRecord.html\"> View Record </a><br>");
        out.println("</div></body></html>");
    }
}
```

ViewDB.java:

```
import jakarta.servlet.http.*;
import jakarta.servlet.*;
import java.io.*;
import java.sql.*;

public class ViewDB extends HttpServlet {
```

```

public void doPost(HttpServletRequest request, HttpServletResponse r
esponse) throws ServletException, IOException {
response.setContentType("text/html");
PrintWriter out = response.getWriter();
try {
Class.forName("com.mysql.cj.jdbc.Driver");
Connection conn = DriverManager.getConnection("jdbc:mysql://localhost:3306/Patient_Details","root","2727");
Statement stmt = conn.createStatement();
ResultSet rs = stmt.executeQuery("SELECT * FROM patientdetails2");
String cssTag="<link rel='stylesheet' type='text/css' href='style/style.css'>";
out.println("<html>");
out.println("<head><title>PMS DB</title>"+cssTag+"</head>");
out.println("<body>");
out.println("<div>");
out.println("<h1> <Center> Complete Patient Database <center> </h1><br>");
out.println("<table id=\"patient\">");
out.println("<tr> <th>Patient ID</th> <th>Name</th> <th>Age</th> <th>Address</th> <th>Gender</th><th>Marital Status</th><th>Date of Visit</th></tr>");
while(rs.next()) {
int id = rs.getInt("id");
int age = rs.getInt("age");
String name = rs.getString("name");
String gender = rs.getString("gender");
String address = rs.getString("address");
String marital = rs.getString("marital_status");
String date = rs.getString("dateofvisit");
out.println("<tr> <td>"+id+"</td>" + "<td>"+name+"</td>" + "<td>"+age+"</td>" + "<td>"+address+"</td>" + "<td>"+gender+"</td>"+ "<td>"+marital+"</td>"+ "<td>"+date+"</td>"+ "</tr>");
}
out.println("</table>");
out.println("<form method=\"POST\" action=\"HomePage\"><br> <input type=\"submit\" value=\"Home\">");
out.println("</div></body></html>");
}

catch (Exception e) {

}

}

}

```

.....

SearchRecord.java:

```
import jakarta.servlet.http.*;
import jakarta.servlet.*;
import java.io.*;
import java.sql.*;

public class SearchRecord extends HttpServlet {
    public void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {
        response.setContentType("text/html");
        PrintWriter out = response.getWriter();
        try {
            String cssTag("<link rel='stylesheet' type='text/css' href='style/style2.css'>");
            String cssTag1("<link rel='stylesheet' type='text/css' href='style/style.css'>");
            out.println("<html>");
            out.println("<head><title>PMS Search</title>" + cssTag + cssTag1 + "</head>");
            out.println("<body>");
            out.println("<div class=\"center\">");
            out.println("<h1> <Center> Search Status <center> </h1><br>");
            Class.forName("com.mysql.cj.jdbc.Driver");
            Connection conn = DriverManager.getConnection("jdbc:mysql://localhost:3306/Patient_Details","root","2727");
            Statement stmt = conn.createStatement();
            String sid = request.getParameter("sid");
            ResultSet rs = stmt.executeQuery("SELECT * FROM patientdetails2 where id="+sid+");

            out.println("<table id=\"patient\">");
            out.println("<tr> <th>Patient ID</th> <th>Name</th> <th>Age</th> <th>Address</th> <th>Gender</th><th>Marital Status</th><th>Date of Visit</th></tr>");
            while(rs.next()) {
                int id = rs.getInt("id");
                int age = rs.getInt("age");
                String name = rs.getString("name");
                String gender = rs.getString("gender");
                String address = rs.getString("address");
                String marital = rs.getString("marital_status");
                String date = rs.getString("dateofvisit");
                out.println("<tr> <td>" + id + "</td>" + "<td>" + name + "</td>" + "<td>" + age + "</td>" + "<td>" + address + "</td>" + "<td>" + gender + "</td>" + "<td>" + marital + "</td>" + "<td>" + date + "</td>" + "</tr>");
            }
            out.println("</table>");
        }
    }
}
```

```

out.println("<form method=\"POST\" action=\"HomePage\"><br> <input t
ype=\"submit\" value=\"Home\">");

out.println("</div></body></html>");
}

catch (Exception e) {

}
}
}

```

..... **AddRecord.java:**

```

import jakarta.servlet.http.*;
import jakarta.servlet.*;
import java.io.*;
import java.sql.*;

public class AddRecord extends HttpServlet {
    public void doPost(HttpServletRequest request, HttpServletResponse r
esponse) throws ServletException, IOException {
        response.setContentType("text/html");
        PrintWriter out = response.getWriter();
        try {
            String cssTag="<link rel='stylesheet' type='text/css' href='style/st
yle2.css'>";
            out.println("<html>");
            out.println("<head><title>PMS Create</title>"+cssTag+"</head>");
            out.println("<body>");
            out.println("<div class=\"center\">");
            out.println("<h1> <Center> Create Status <center> </h1><br>");
            Class.forName("com.mysql.cj.jdbc.Driver");
            Connection conn = DriverManager.getConnection("jdbc:mysql://localhost:3306/Patient_Details","root","2727");
            Statement stmt = conn.createStatement();
            String name = request.getParameter("name");
            String gender = request.getParameter("gender");
            String address = request.getParameter("address");
            String marital = request.getParameter("marital");
            String dov = request.getParameter("dov");
            int age=Integer.parseInt(request.getParameter("age"));
            ResultSet rs = stmt.executeQuery("SELECT MAX(id) as m FROM patientde
tails2;");
            int id = 1;
            while(rs.next()) {
                id = rs.getInt("m")+1;
            }
        }
    }
}

```

```

String sql = "INSERT INTO patientdetails2 VALUES (\"" + name + "\", " +
age + ", " + id + ", \"" + address + "\", \"" + gender + "\", \"" + marital + "\", \""
+ dov + "\");";
stmt.executeUpdate(sql);
out.println("<form method=\"POST\" action=\"ViewDB\"><h1><center>Rec
ord Created</center></h1><br><br> <h1><center><input type=\"submit\"
value=\"View\"></center></h1>");
out.println("</div></body></html>");
}
catch (Exception e) {
}
}
}

```

DeleteRecord.java:

```

import jakarta.servlet.http.*;
import jakarta.servlet.*;
import java.io.*;
import java.sql.*;

public class DeleteRecord extends HttpServlet {
    public void doPost(HttpServletRequest request, HttpServletResponse r
esponse) throws ServletException, IOException {
        response.setContentType("text/html");
        PrintWriter out = response.getWriter();
        try {
            String cssTag="<link rel='stylesheet' type='text/css' href='style/st
yle2.css'>";
            out.println("<html>");
            out.println("<head><title>PMS Delete</title>"+cssTag+"</head>");
            out.println("<body>");
            out.println("<div class=\"center\">");
            out.println("<h1> <Center> Delete Status <center> </h1><br>");
            Class.forName("com.mysql.cj.jdbc.Driver");
            Connection conn = DriverManager.getConnection("jdbc:mysql://localhos
t:3306/Patient_Details","root","2727");
            Statement stmt = conn.createStatement();
            String sid = request.getParameter("sid");
            stmt.executeUpdate("DELETE FROM patientdetails2 where id="+sid+");";
            out.println("<form method=\"POST\" action=\"ViewDB\"><h1><center>Rec
ord Deleted</center></h1><br><br> <h1><center><input type=\"submit\"
value=\"View\"></center></h1>");
            out.println("</div></body></html>");
        }
    }
}

```

```

catch (Exception e) {
}
}
}

```

UpdateRecord.java:

```

import jakarta.servlet.http.*;
import jakarta.servlet.*;
import java.io.*;
import java.sql.*;

public class UpdateRecord extends HttpServlet {
    public void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {
        response.setContentType("text/html");
        PrintWriter out = response.getWriter();
        try {
            String cssTag="<link rel='stylesheet' type='text/css' href='style/style2.css'>";
            out.println("<html>");
            out.println("<head><title>PMS Update</title>"+cssTag+"</head>");
            out.println("<body>");
            out.println("<div class=\"center\">");
            out.println("<h1> <Center> Update Status <center> </h1><br>");
            Class.forName("com.mysql.cj.jdbc.Driver");
            Connection conn = DriverManager.getConnection("jdbc:mysql://localhost:3306/Patient_Details","root","2727");
            Statement stmt = conn.createStatement();
            int id = Integer.parseInt(request.getParameter("id"));
            String address = request.getParameter("address");
            String dov = request.getParameter("dov");
            if(address.equals("nc")){
                String sql = "UPDATE patientdetails2 SET dateofvisit=\"\" + dov + \"\" WHERE id=" + id + ";";
                stmt.executeUpdate(sql);
            }else if(dov.equals("1111-11-11")){
                String sql = "UPDATE patientdetails2 SET address=\"\"+ address + \"\" WHERE id=" + id + ";";
                stmt.executeUpdate(sql);
            }
            else{
                String sql = "UPDATE patientdetails2 SET address=\"\"+ address + \"\", dateofvisit=\"\" + dov + \"\" WHERE id=" + id + ";";
                stmt.executeUpdate(sql);
            }
            out.println("<form method=\"POST\" action=\"ViewDB\"><h1><center>Record Updated</center></h1><br><br> <h1><center><input type=\"submit\"

```

```
        value=\"View\\></center></h1>\");
out.println("</div></body></html>");
}
catch (Exception e) {
}
}
}
```

Style.css:

```
body {
background-color: yellow;
text-align: center;
}

div {
display: inline-block;
margin-left: auto;
margin-right: auto;
text-align: left;
}

#patient {
font-family: Arial, Helvetica, sans-serif;
border-collapse: collapse;
width: 100%;
}

#patient td,
#patient th {
border: 1px solid #ddd;
padding: 8px;
}

#patient tr:nth-child(even) {
background-color: #f2f2f2;
}

#patient tr:nth-child(odd) {
background-color: cyan;
}

#patient tr:hover {
background-color: red;
}
```

```
#patient th {
padding-top: 12px;
padding-bottom: 12px;
text-align: left;
background-color: #4caf50;
color: white;
}
```

Style1.css:

```
div.form {
display: block;
text-align: center;
}
```

```
form {
display: inline-block;
margin-left: auto;
margin-right: auto;
text-align: left;
}
```

Style2.css:

```
.center {
margin-left: auto;
margin-right: auto;
}
```

```
body {
background-color: aquamarine;
}
```

.....

Web.xml:

```
<web-app>
<servlet>
<servlet-name>HomePage</servlet-name>
<servlet-class>HomePage</servlet-class>
</servlet>
<servlet-mapping>
<servlet-name>HomePage</servlet-name>
<url-pattern>/HomePage</url-pattern>
</servlet-mapping>

<servlet>
```

```
<servlet-name>AddRecord</servlet-name>
<servlet-class>AddRecord</servlet-class>
</servlet>
<servlet-mapping>
<servlet-name>AddRecord</servlet-name>
<url-pattern>/AddRecord</url-pattern>
</servlet-mapping>
```

```
<servlet>
<servlet-name>DeleteRecord</servlet-name>
<servlet-class>DeleteRecord</servlet-class>
</servlet>
<servlet-mapping>
<servlet-name>DeleteRecord</servlet-name>
<url-pattern>/DeleteRecord</url-pattern>
</servlet-mapping>
```

```
<servlet>
<servlet-name>UpdateRecord</servlet-name>
<servlet-class>UpdateRecord</servlet-class>
</servlet>
<servlet-mapping>
<servlet-name>UpdateRecord</servlet-name>
<url-pattern>/UpdateRecord</url-pattern>
</servlet-mapping>
```

```
<servlet>
<servlet-name>SearchRecord</servlet-name>
<servlet-class>SearchRecord</servlet-class>
</servlet>
<servlet-mapping>
<servlet-name>SearchRecord</servlet-name>
<url-pattern>/SearchRecord</url-pattern>
</servlet-mapping>
```

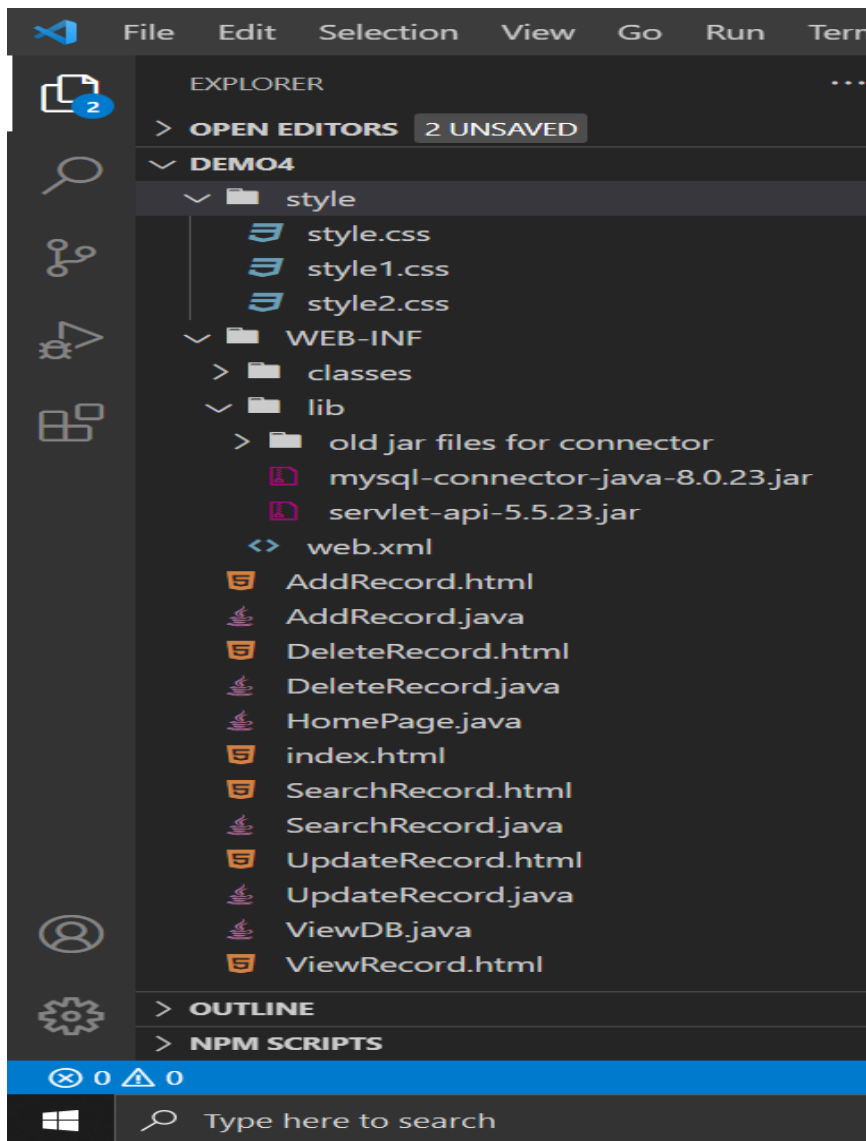
```
<servlet>
<servlet-name>ViewDB</servlet-name>
<servlet-class>ViewDB</servlet-class>
</servlet>
<servlet-mapping>
<servlet-name>ViewDB</servlet-name>
<url-pattern>/ViewDB</url-pattern>
</servlet-mapping>
```

```
</web-app>
```

.....

Output:

Directory Structure:



MySQL:

```
MySQL 5.7 Command Line Client
Enter password: ****
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 74
Server version: 5.7.33-log MySQL Community Server (GPL)

Copyright (c) 2000, 2021, Oracle and/or its affiliates.

Oracle is a registered trademark of Oracle Corporation and/or its
affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> use Patient_Details;
Database changed
mysql> select * from patientdetails2;
+-----+-----+-----+-----+-----+-----+-----+
| name      | age | id | address | gender | marital_status | dateofvisit |
+-----+-----+-----+-----+-----+-----+-----+
| suresh    | 30  | 1  | abcd    | male   | married        | 1111-11-10  |
| vignesh   | 20  | 2  | kolkaata | male   | single         | 2021-01-01  |
| Venkatesh B | 2  | 3  | mumbai  | female | single         | 2021-03-27  |
+-----+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)

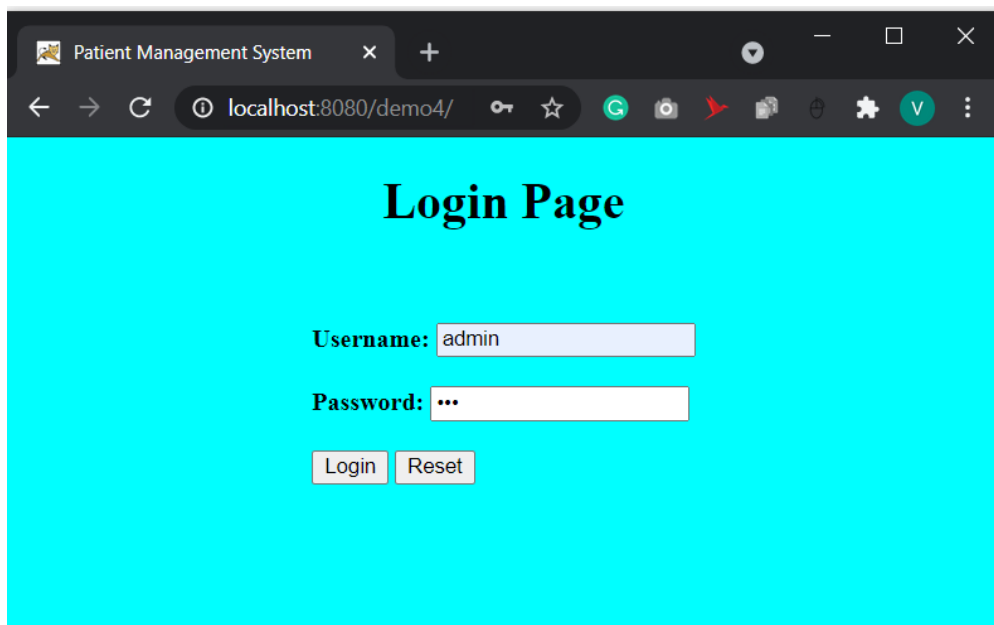
mysql>
```



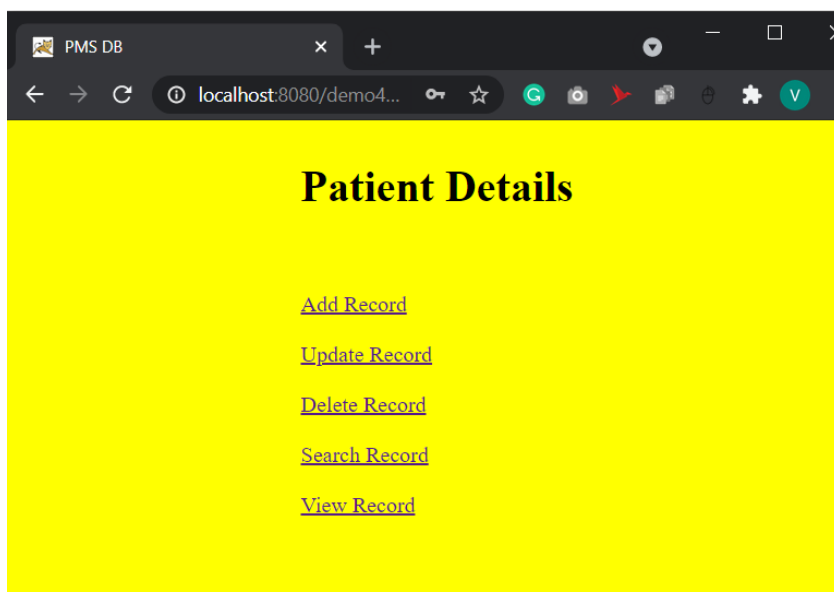
```
Command Prompt

C:\Program Files\Apache Software Foundation\Tomcat 10.0\webapps\demo4>javac -d WEB-INF\classes ViewDB.java
C:\Program Files\Apache Software Foundation\Tomcat 10.0\webapps\demo4>javac -d WEB-INF\classes HomePage.java
C:\Program Files\Apache Software Foundation\Tomcat 10.0\webapps\demo4>javac -d WEB-INF\classes SearchRecord.java
C:\Program Files\Apache Software Foundation\Tomcat 10.0\webapps\demo4>javac -d WEB-INF\classes UpdateRecord.java
C:\Program Files\Apache Software Foundation\Tomcat 10.0\webapps\demo4>javac -d WEB-INF\classes AddRecord.java
C:\Program Files\Apache Software Foundation\Tomcat 10.0\webapps\demo4>javac -d WEB-INF\classes DeleteRecord.java
C:\Program Files\Apache Software Foundation\Tomcat 10.0\webapps\demo4>_
```

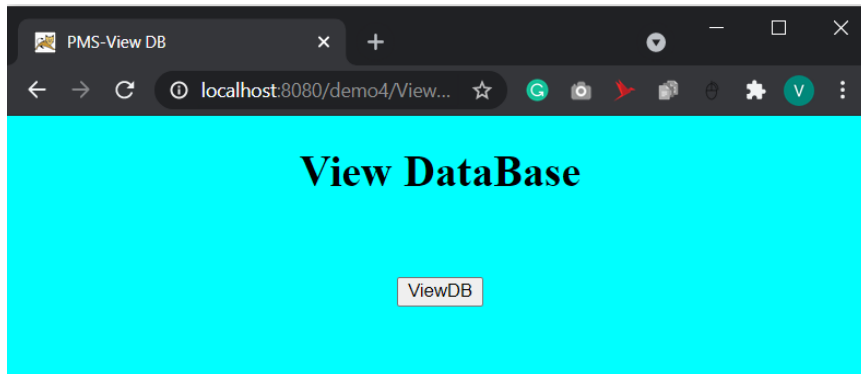
Index.html:



HomePage.java:



ViewRecord.html:

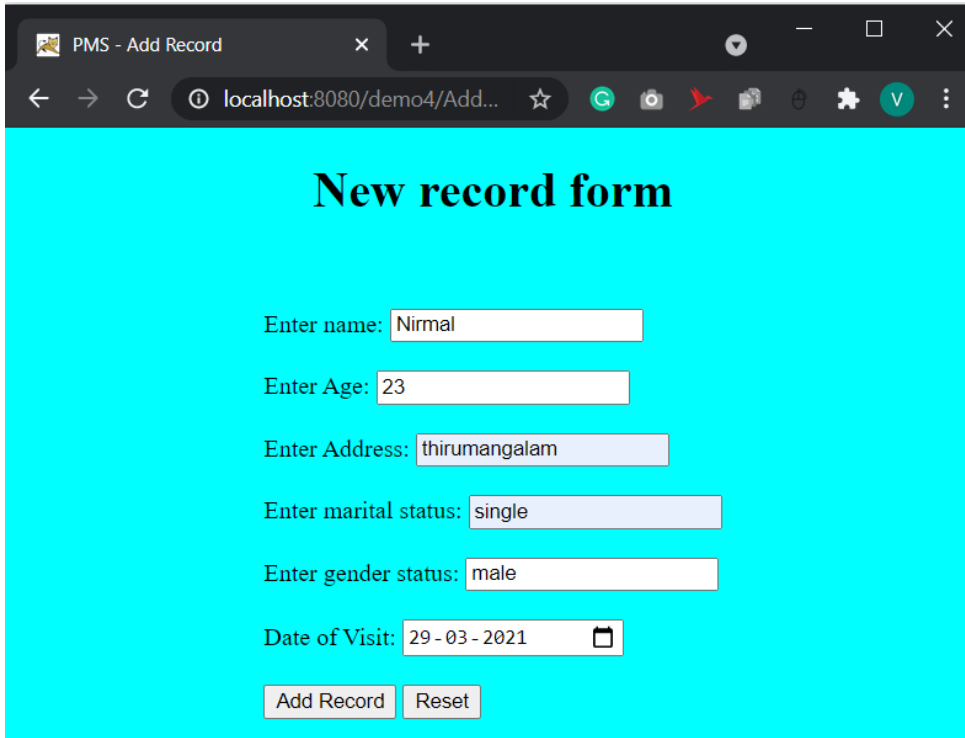


ViewDB.java:

A screenshot of a web browser window. The address bar shows 'localhost:8080/demo4/View...'. The page has a blue background and the title 'Complete Patient Database' in bold black text. Below the title is a table with 7 columns: Patient ID, Name, Age, Address, Gender, Marital Status, and Date of Visit. The table contains 3 rows of data. Below the table is a button labeled 'Home'.

Patient ID	Name	Age	Address	Gender	Marital Status	Date of Visit
1	suresh	30	abcd	male	married	1111-11-10
2	vignesh	20	kolkaata	male	single	2021-01-01
3	Venkatesh B	2	mumbai	female	single	2021-03-27

AddRecord.html:



New record form

Enter name:

Enter Age:

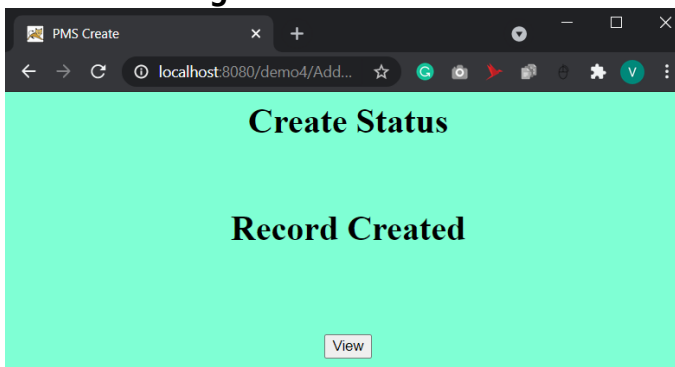
Enter Address:

Enter marital status:

Enter gender status:

Date of Visit:

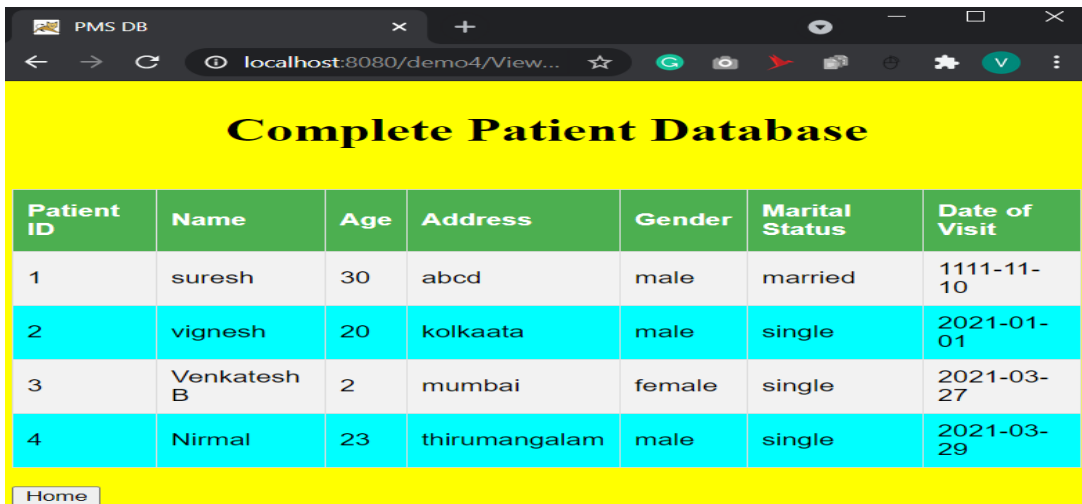
AddRecord.java



Create Status

Record Created

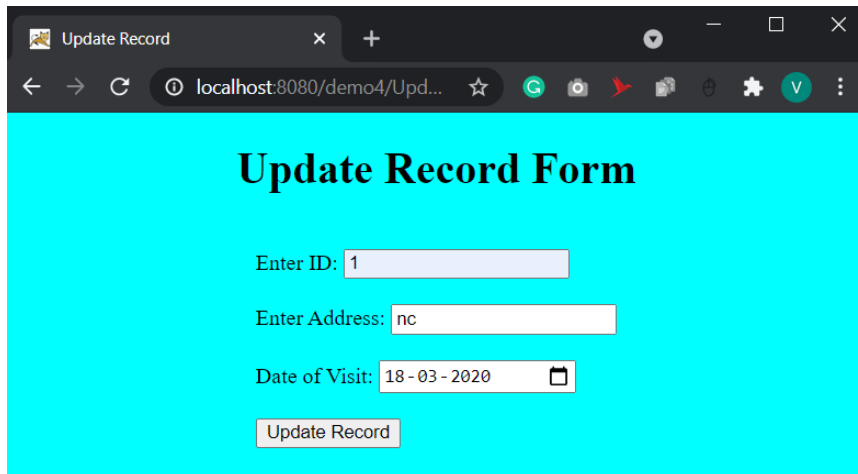
Latest DB:



Complete Patient Database

Patient ID	Name	Age	Address	Gender	Marital Status	Date of Visit
1	suresh	30	abcd	male	married	1111-11-10
2	vignesh	20	kolkaata	male	single	2021-01-01
3	Venkatesh B	2	mumbai	female	single	2021-03-27
4	Nirmal	23	thirumangalam	male	single	2021-03-29

UpdateRecord.html:




The screenshot shows a web browser window with the title 'Update Record'. The address bar shows 'localhost:8080/demo4/Upd...'. The page has a blue background and contains the following form:

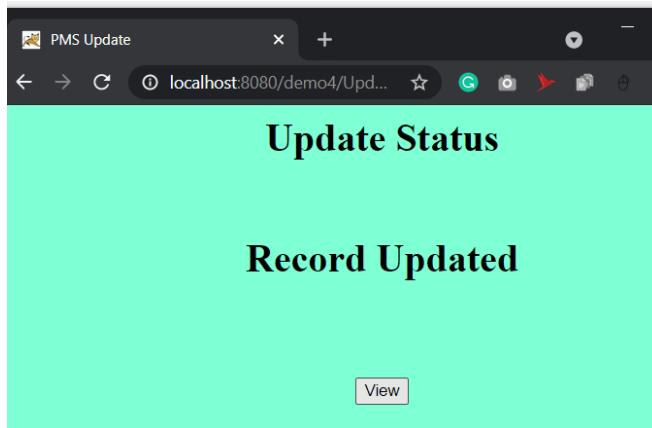
Update Record Form

Enter ID:

Enter Address:

Date of Visit: 

UpdateRecord.java:

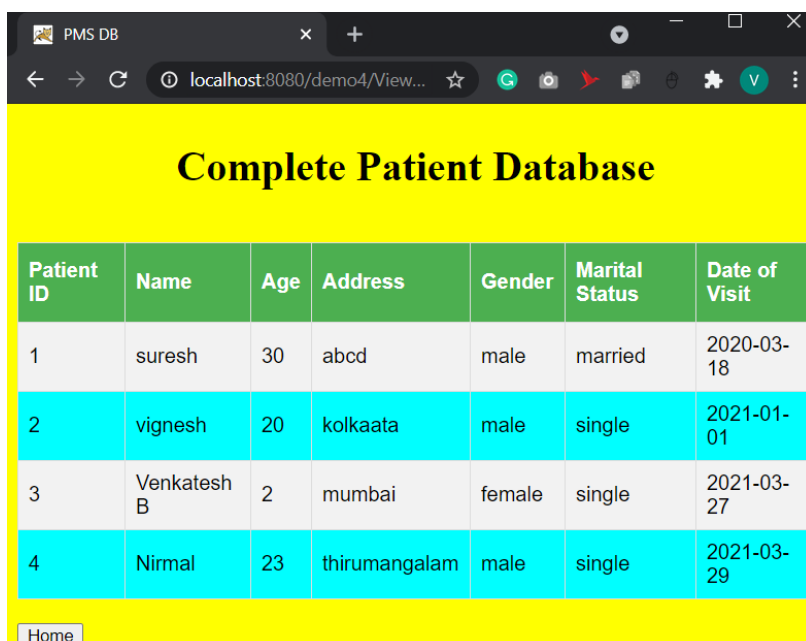


The screenshot shows a web browser window with the title 'PMS Update'. The address bar shows 'localhost:8080/demo4/Upd...'. The page has a green background and contains the following text:

Update Status

Record Updated

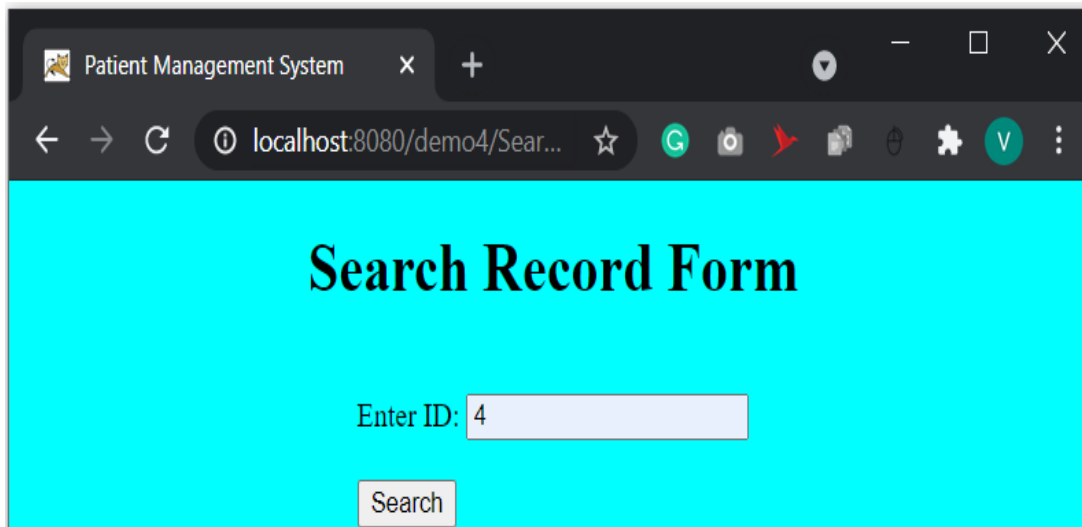
Latest DB:



The screenshot shows a web browser window with the title 'PMS DB'. The address bar shows 'localhost:8080/demo4/View...'. The page has a yellow background and contains the following table:

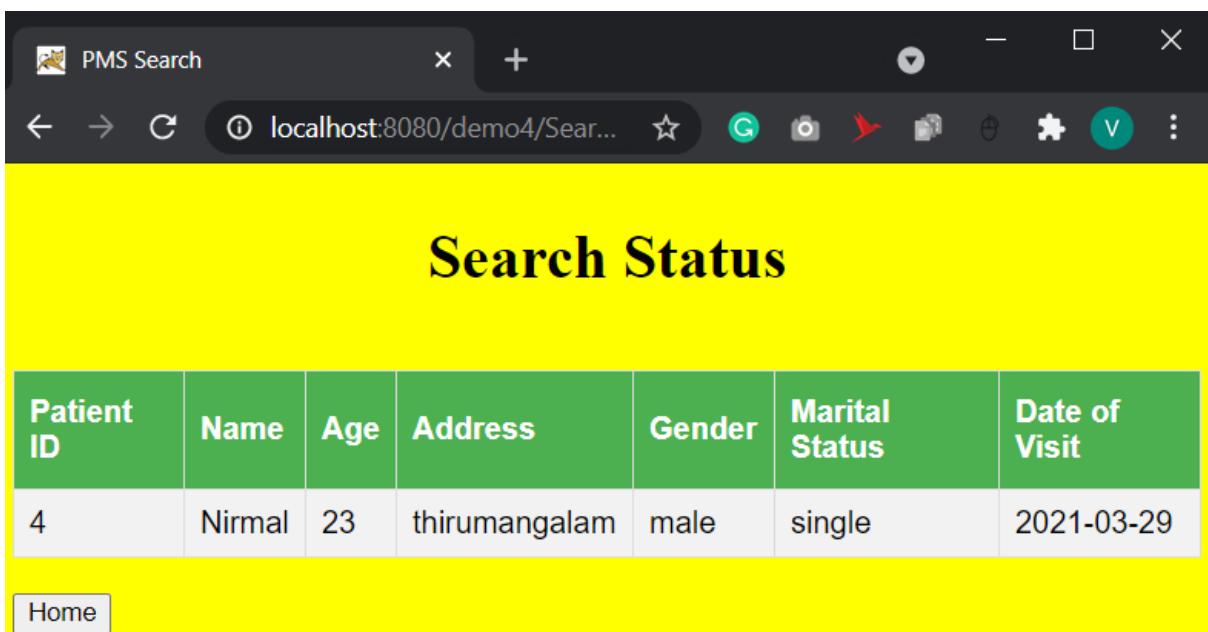
Patient ID	Name	Age	Address	Gender	Marital Status	Date of Visit
1	suresh	30	abcd	male	married	2020-03-18
2	vignesh	20	kolkaata	male	single	2021-01-01
3	Venkatesh B	2	mumbai	female	single	2021-03-27
4	Nirmal	23	thirumangalam	male	single	2021-03-29

SearchRecord.html:



The screenshot shows a web browser window with the title 'Patient Management System'. The address bar shows 'localhost:8080/demo4/Sear...'. The page has a red background and displays the title 'Search Record Form' in a large, bold, black font. Below the title, there is a text input field labeled 'Enter ID:' containing the number '4'. Below the input field is a 'Search' button.

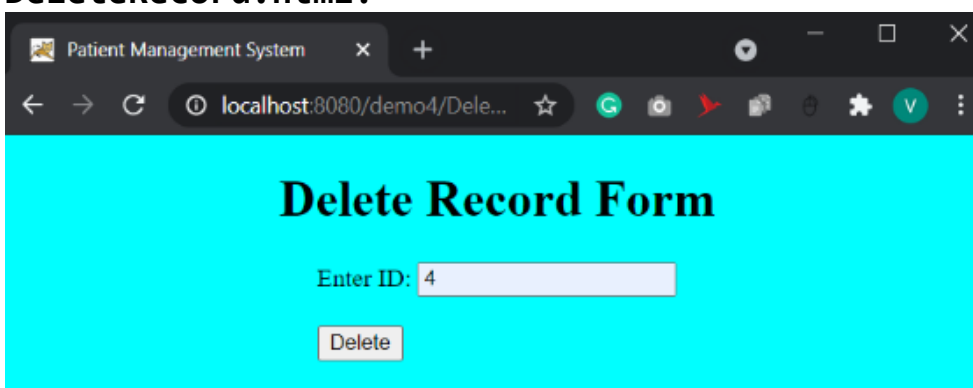
SearchRecord.java:



The screenshot shows a web browser window with the title 'PMS Search'. The address bar shows 'localhost:8080/demo4/Sear...'. The page has a blue background and displays the title 'Search Status' in a large, bold, black font. Below the title is a table with 7 columns: Patient ID, Name, Age, Address, Gender, Marital Status, and Date of Visit. The table contains one row of data. Below the table is a 'Home' button.

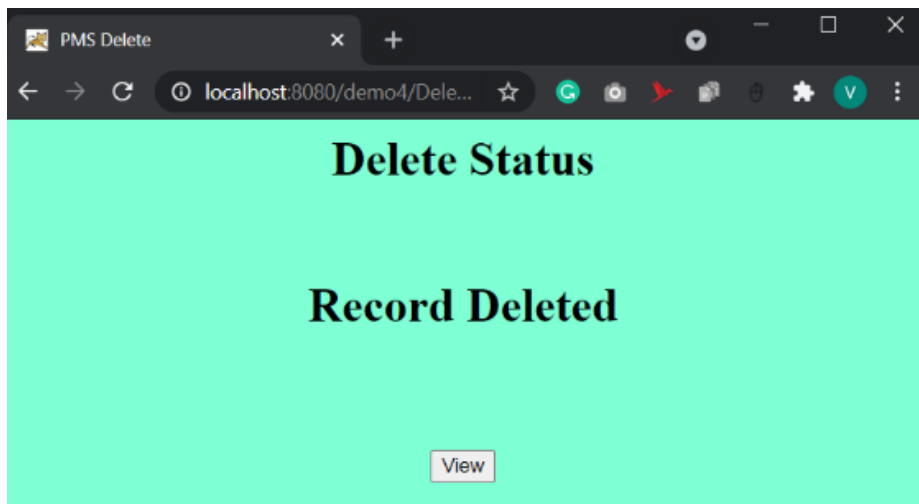
Patient ID	Name	Age	Address	Gender	Marital Status	Date of Visit
4	Nirmal	23	thirumangalam	male	single	2021-03-29

DeleteRecord.html:



The screenshot shows a web browser window with the title 'Patient Management System'. The address bar shows 'localhost:8080/demo4/Dele...'. The page has a red background and displays the title 'Delete Record Form' in a large, bold, black font. Below the title, there is a text input field labeled 'Enter ID:' containing the number '4'. Below the input field is a 'Delete' button.

DeleteRecord.java:



Latest DB:

A screenshot of a web browser window titled 'PMS DB'. The address bar shows 'localhost:8080/demo4/View...'. The main content area has a yellow background with the text 'Complete Patient Database' in bold black font. Below the text is a table with 7 columns: Patient ID, Name, Age, Address, Gender, Marital Status, and Date of Visit. The table contains 3 rows of data. At the bottom left, there is a 'Home' button.

Patient ID	Name	Age	Address	Gender	Marital Status	Date of Visit
1	suresh	30	abcd	male	married	2020-03-18
2	vignesh	20	kolkaata	male	single	2021-01-01
3	Venkatesh B	2	mumbai	female	single	2021-03-27

.....