***ASSIGNMENT 4***

***UCS 1601 – INTERNET PROGRAMMING***

**NAME: Vishal T**

**REG NUMBER: 185001199**

**DATE: 26/03/2021**

**I. SERVLET TO COMPUTE THE GROSS PAY OF EMPLOYEES**

**SPECIFICATIONS:**

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.

**HTML CODE:**

**index.html**

<!Doctype HTML>

<html>

<head>

<meta charset="utf-8">

<meta name="viewport" content="width=device-width">

<link rel="stylesheet" href="style.css">

<script src="script.js"></script>

<title>Employee Form</title>

</head>

<body>

<div class="divform">

<h1 class="heading">EMPLOYEE REGISTRATION FORM</h1>

<br><br>

<form name="form1" method="POST" action="http://localhost:8080/Emp/Employee">

<label for="eid">EMPLOYEE ID</label><br>

<input type= "text" id="eid" name="EID" pattern=[A-Za-z]{3}-[0-9]{3} onfocus="foc(this)" onblur="blr(this)" placeholder="Enter your Employee ID" required><br><br>

<label for="Name">EMPLOYEE NAME</label><br>

<input type= "text" id="name" name="Name" onfocus="foc(this)" onblur="blr(this)" placeholder="Enter your name" required><br><br>

<label for="dob">DOB</label><br>

<input type="date" id="dob" name="DOB"><br><br>

<label for="gender">GENDER</label><br><br>

<input type="radio" id="Male" name="Gender" value="Male" required>

<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="addr">ADDRESS</label><br>

<textarea type="text" id="addr" name="Address" required></textarea><br><br>

<label for="status">MARITAL STATUS</label><br>

<select name="Marital Status" id="mat" onfocus="foc(this)" required onblur="blr(this)" >

<option value="Married">Married</option>

<option value="Single">Single</option>

</select><br><br>

<label for="dep">DEPARTMENT</label><br>

<input type= "text" id="dep" name="Department" onfocus="foc(this)" onblur="blr(this)" placeholder="Enter name" required><br><br>

<label for="desig">DESIGNATION</label><br>

<select name="Designation" id="desig" onfocus="func(this)" required onblur="func1(this)">

<option value="Manager">Manager</option>

<option value="Employee">Employee</option>

<option value="Intern">Intern</option>

<option value="Receptionist">Receptionist</option>

<option value="Sales Representative">Sales Rep</option>

</select><br><br>

<label for="phone">PHONE NUMBER</label><br>

<input type="tel" id="phone" name="Contact" oninvalid="inv(this)" required min=10 PATTERN=[0-9]{10} placeholder="Enter phone number"><br><br>

<label for="sal">BASIC PAY</label><br>

<input type= "number" id="sal" name="Basic Pay" onfocus="foc(this)" onblur="blr(this)" placeholder="Enter Basic pay" required><br><br>

<input type="submit" value="SUBMIT" >

<input type="reset" value="RESET">

</form>

</div>

</body>

</html>

**CSS SHEET**

**style.css**

body{

    background-color: rgb(86, 255, 136);

    min-height: 100vh;

    }

.divform

    {

    margin:30px;

    background-color:rgb(0, 217, 255);;

    padding-top:25px;

    text-align:left;

    padding-bottom:50px;

    border-radius: 15px;

    border: 2px solid black;

    color: black;

    font-size: 16px;

    }

.heading

    {

    text-align: center;

    color: black;

    font-family:Arial, Helvetica, sans-serif;

    font-size: 30px;

    }

.ftitle

    {

    font-family: 'Times New Roman', Times, serif;

    font-style: oblique;

    font-size: 25px;

    text-align: center;

    font-weight: bolder;

    }

form

    {

    text-align: center;

    font-family: 'Times New Roman', Times, serif;

    font-size: 20px;

    color: black;

    }

textarea[type=text]

    {

    height: 100px;

    width: 75%;

    padding: 12px 17px;

    margin: 8px 0;

    box-sizing: border-box;

    border-radius: 7px;

    font-size: 15px;

    }

input[type=text],input[type=number],input[type=date],select,input[type=tel]

    {

    width: 75%;

    border-radius: 7px;

    background-color: white;

    display: inline-block;

    box-sizing: border-box;

    height: 50px;

    }

input[type=submit],input[type=reset]{

    width: 40%;

    border-radius: 7px;

    background-color: rgb(255, 255, 255);

    display: inline-flex;

    justify-content: space-evenly;

    display:space-between;

    box-sizing: border-box;

    margin-left: 80px;

    height: 50px;

    }

#dob{

    width:40%;

    }

#phone{

    width:40%;

    }

#sal{

    width:40%;

    }

table,td,th{

    margin-top: 30px;

    margin-left: auto;

    margin-right: auto;

    width: 60%;

    border: 1px solid rgb(0, 0, 0);

    font-weight: bold;

    font-size: 19px;

    }

td{

    padding: 30px;

    text-align: left;

    background-color: rgb(88, 218, 235);

    }

th{

    height: 60px;

    padding: 40px;

    text-align: center;

    font-size: 20px;

    background-color: rgb(0, 183, 255);

    }

**JAVASCRIPT – script.js:**

  function foc(a)

    {

    a.style.background="lavender";

    }

    function blr(a)

    {

    a.style.background="white";

    }

**SERVLET CODE: Employee.java**

import java.io.\*;

import jakarta.servlet.\*;

import jakarta.servlet.http.\*;

import java.util.\*;

public class Employee extends HttpServlet

{

public void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException

{

String sal=request.getParameter("Basic Pay");

String desig = request.getParameter("Designation");

float pay = Float.parseFloat(sal);

if(desig.equalsIgnoreCase("Sales Representative")){

pay = 175\*pay/100;

}

else if(desig.equalsIgnoreCase("Manager")){

pay = 190\*pay/100;

}

else if(desig.equalsIgnoreCase("Receptionist")){

pay = 135\*pay/100;

}

else if(desig.equalsIgnoreCase("Employee")){

pay = 150\*pay/100;

}

else if(desig.equalsIgnoreCase("Intern")){

pay = 110\*pay/100;

}

response.setContentType("text/html");

PrintWriter pw = response.getWriter();

pw.println("<html><head><title>Form details</title>");

pw.println("<link rel='stylesheet' href='style.css'>");

pw.println("</head>");

pw.println("<body style='background-color:cyan'><br><br><br>");

pw.println("<div class='divform'>");

pw.println("<table align='center' width='60%' border='1'><br>");

pw.println("<caption>Employee Details</caption><br>");

pw.println("<br><br><table>");

pw.println("<thead><tr><th colspan='2'>Employee Details</th></tr></thead>");

Enumeration paramNames = request.getParameterNames();

while(paramNames.hasMoreElements()){

String paramName = (String)paramNames.nextElement();

pw.println("<tr><td>"+paramName+"</td>");

String[] paramValues = request.getParameterValues(paramName);

if (paramValues.length == 1){

String paramValue = paramValues[0];

if (paramValue.length() == 0)

pw.println("<td>NO VALUE</td>");

else

pw.println("<td>"+paramValue+"</td>");

} else{

pw.print("<td>");

for(int i=0; i<paramValues.length; i++){

pw.print(paramValues[i]+" ");

}

pw.print("</td></tr>\n");

}

}

pw.println("<tr><td>Gross Pay</td><td>"+pay+"</td></tr>");

pw.println("</table>\n</body>");

pw.print("</html>");

pw.close();

}

}

**XML CODE:**

**web.xml**

<web-app>

<servlet>

<servlet-name>Employee-Form</servlet-name>

<servlet-class>Employee</servlet-class>

</servlet>

<servlet-mapping>

<servlet-name>Employee-Form</servlet-name>

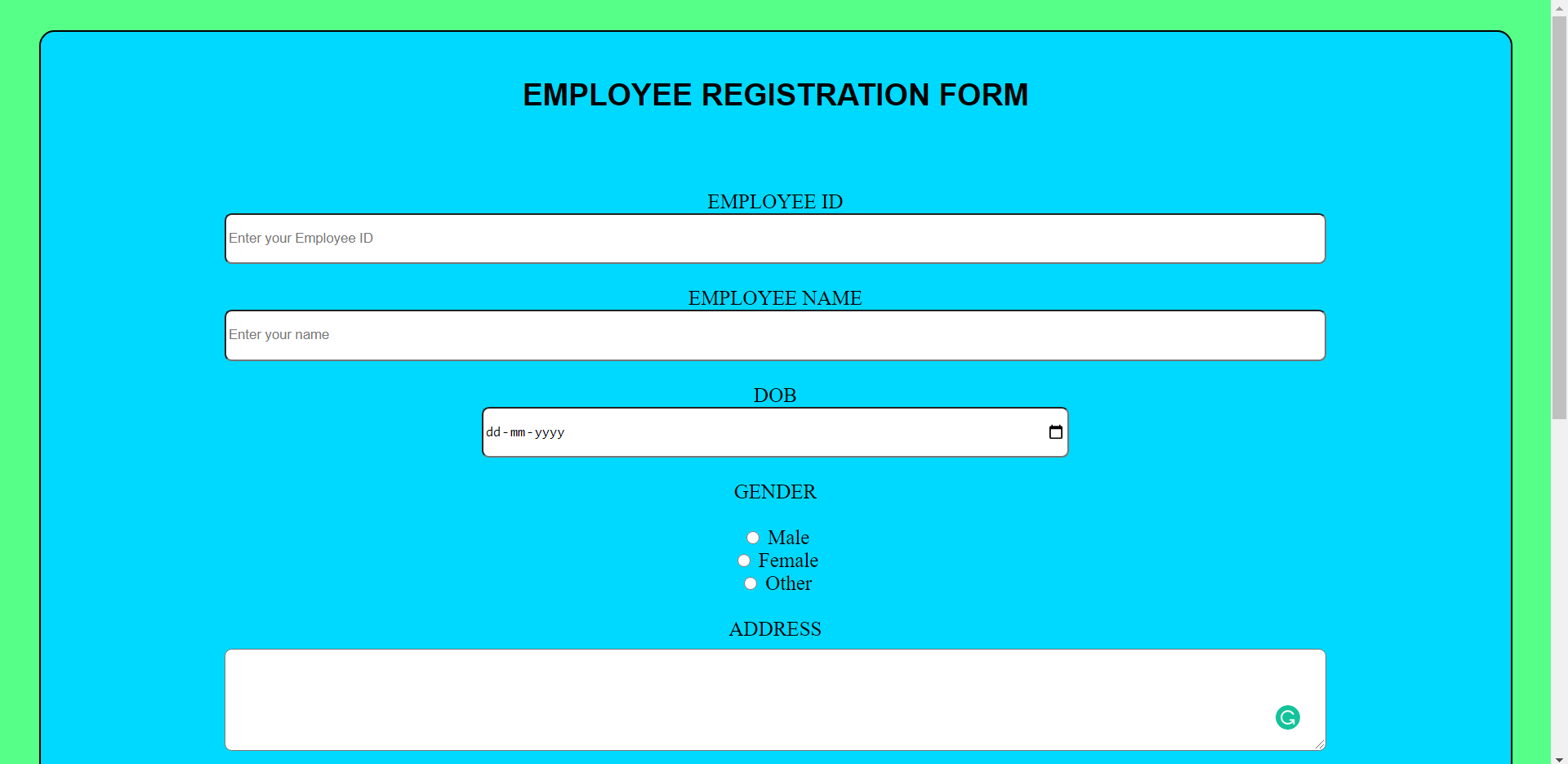
<url-pattern>/Employee</url-pattern>

</servlet-mapping>

</web-app>

**SNAPSHOTS:**

1. The form.



2. The Table that was generated with the Employee details.



***ASSIGNMENT 4***

***UCS 1601 – INTERNET PROGRAMMING***

**NAME: Vishal T**

**REG NUMBER: 185001199**

**DATE: 26/03/2021**

**II. PATIENT MANAGEMENT SYSTEM**

**SPECIFICATIONS:**

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 with links to

add/update/search/delete record and view records.

h. Clicking the links should invoke its corresponding html file from where the information is submitted to the corresponding Servlet.

i. Similarly, perform ADD, UPDATE, VIEW and SEARCH using corresponding html and Servlet.

j. UPDATE is invoked if phone number or Address of the patient is changed.

k. SEARCH for particular patient based on Patient ID .

l. After each operation ViewServlet should be invoked to view the changes in the Database.

**CSS CODE :**

**style1.css**

::placeholder{

color: #fff;

}

body{

margin: 0px;

padding: 0px;

background-image: url("images/hosp.jpg");

background-attachment: fixed;

background-size: cover;

font-family: Sans-Serif;

background-size: cover;

}

.box{

position: absolute;

top: 50%;

left: 50%;

transform: translate(-50%, -50%);

width: 400px;

padding: 40px;

background:rgb(0,0,0,0.5);

box-sizing: border-box;

box-shadow: 0 15px 25px rgba(0,0,0,0.4);

border-radius: 10px;

}

.box img{

transform: translateX(60%);

}

.box h2{

margin: 0 0 30px;

padding: 0;

color: #fff;

text-align: center;

}

.inputBox{

position: relative;

}

.inputBox input{

width: 100%;

padding: 10px 0;

font-size: 16px;

margin-bottom: 15px;

color: #fff;

border: none;

border-bottom: 2px solid #fff;

outline: none;

background: transparent;

}

.box .inputBox label{

position: absolute;

top: 0;

left: 0;

padding: 10px 0;

font-size: 16px;

color: #fff;

cursor:pointer;

}

.submit-btn{

transform: translateX(150%);

background: transparent;

border: none;

outline: none;

color: #fff;

background-color: #03a9f4;

padding: 10px 20px;

}

JAVASCRIPT : script.js [\Project3\static]

function check()

{

var user=document.getElementById("name").value;

var pass=document.getElementById("pass").value;

if(user=="admin" && pass=="admin@123")

{

window.open("homepage.html");

}

else

{

alert("Login Unsuccessful!!");

document.getElementById("name").innerHTML=" ";

document.getElementById("pass").innerHTML=" ";

document.getElementById("name").select();

return False;

}

}

CSS CODE : style2.css [\Project3\static]

body

{

margin: 0;

padding: 0;

font-family: 'Trebuchet MS', sans-serif;

background: #bfd6e9;

}

.nav-bar h2{

padding:50px 0px;

position:relative;

margin-left:auto;

margin-right: auto;

text-align: center;

cursor: pointer;

width: 300px;

height: 150px;

}

.nav-bar{

background-color: #eee7e7;

position: relative;

}

.nav-bar ul{

align-items: center;

justify-content:center;

top:50%;

left: 50%;

margin: 0;

padding: 10px 0;

background: #fff;

display: flex;

border-radius: 10px;

box-shadow: 0 10px 30px rgba(0,0,0,.5);

transform:translate(0%, 10%);

}

.nav-bar ul li

{

list-style: none;

text-align: center;

display: block;

border-right: 1px solid rgba(0,0,0,0.2);

}

.nav-bar ul li:last-child{

border-right: none;

}

.nav-bar ul li a{

text-decoration: none;

padding: 0 50px;

display: block;

}

CSS CODE : style3.css [\Project3\static]

.form-bg h1{

text-align : center;

font-size: 3em;

text-shadow: 2px 2px #d3c8c8;

color: #030003

}

form{

font-size: 19px;

}

table,td,th{

margin-top: 30px;

margin-left: auto;

margin-right: auto;

width: 60%;

border: 1px solid black;

font-weight: bold;

color: white;

font-size: 19px;

}

td{

padding: 30px;

text-align: left;

}

th{

height: 60px;

padding: 40px;

text-align: center;

font-size: 20px;

}

table, .tb{

border: 1px solid rgba(0,0,0,0.0);

border-radius: 10px;

background: rgba(0,0,0,0.3);

}

.tb th,.tb td{

border: 1px solid rgba(0,0,0,0.0);

color: white;

}

input[type=text],input[type=email],select,input[type=tel]

{

width: 300px;

padding: 12px 17px;

margin: 8px 0;

box-sizing: border-box;

border-radius: 4px;

font-size: 15px;

}

textarea[type=text]

{

height: 100px;

width: 300px;

padding: 12px 17px;

margin: 8px 0;

box-sizing: border-box;

border-radius: 4px;

font-size: 15px;

}

input[type=submit],input[type=reset]

{

width: 150px;

padding: 12px 17px;

margin: 8px 0;

border-radius: 4px;

border: none;

font-size: 17px;

cursor: pointer;

background-color: white;

}

input[type=date]

{

padding: 5px 8px;

border-radius: 4px;

}

HTML CODE: index.html [Project3]

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="utf-8">

<meta name="viewport" content="width=device-width, initialscale=

1, shrink-yo-fit=no">

<!--Bootstrap CSS-->

<link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/bootstrap@4.5.3/

dist/css/bootstrap.min.css" integrity="sha384-

TX8t27EcRE3e/ihU7zmQxVncDAy5uIKz4rEkgIXeMed4M0jlfIDPvg6uqKI2xXr2" crossorigin=

"anonymous">

<title>Patient Record Management</title>

<link rel="stylesheet" href="static/style1.css">

<script src="static/script1.js"></script>

</head>

<body>

<div class="box">

<img src="static/images/user.png" alt="" width="150" height="150"></img>

<h2>LOGIN</h2>

<form action="#">

<div class="inputBox">

<!--<label for="Name">User Name</label> -->

<input type="text" id="name" name="name" autofocus="autofocus" place

holder="USER NAME" autocomplete="off" required><br><br>

</div>

<div class="inputBox">

<!--<label for="pass">Password </label> -->

<input type="password" id="pass" name="pass" placeholder="PASSWORD"

autocomplete="off" required><br><br>

</div>

<input type="submit" class="submitbtn"

value="Login" onclick="check()">

</form>

</div>

</body>

</html>

HTML CODE: homepage.html [Project3]

<!DOCTYPE html>

<html>

<head>

<meta charset="utf-8">

<meta name="viewport" content="width=device-width, initialscale=

1, shrink-to-fit=no"

<link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/bootstrap@4.5.3/

dist/css/bootstrap.min.css" integrity="sha384-

TX8t27EcRE3e/ihU7zmQxVncDAy5uIKz4rEkgIXeMed4M0jlfIDPvg6uqKI2xXr2" crossorigin=

"anonymous">

<link rel="stylesheet" href="static/style2.css">

<title>Welcome</title>

</head>

<body>

<div class="nav-bar">

<h2>PATIENT DETAILS</h2>

<div class="bar">

<ul>

<li>

<a href="add.html"><div class="add">Add Record</div></a>

</li>

<li>

<a href="update.html"><div class="upd">Update Record</div></a>

</li>

<li>

<a href="del.html"><div class="del">Delete Record</div></a>

</li>

<li>

<a href="http://localhost:8080/Project3/view"><div class="vew">

View Record</div></a>

</li>

<li>

<a href="search.html"><div class="ser">Search Record</div></a>

</li>

</ul>

</div>

</div>

<div style="justify-content: center; text-align: center;">

<h1 style="color: #fff; padding: 200px; fontsize:

5em;">WELCOME ADMIN</h1>

</div>

</body>

</html>

HTML CODE: add.html [Project3]

<!DOCTYPE html>

<html>

<head>

<meta charset="utf-8">

<meta name="viewport" content="width=device-width, initialscale=

1, shrink-to-fit=no">

<link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/bootstrap@4.5.3/

dist/css/bootstrap.min.css" integrity="sha384-

TX8t27EcRE3e/ihU7zmQxVncDAy5uIKz4rEkgIXeMed4M0jlfIDPvg6uqKI2xXr2" crossorigin=

"anonymous">

<link rel="stylesheet" href="static/style2.css">

<link rel="stylesheet" href="static/style3.css">

<title>Add Record</title>

</head>

<body>

<div class="nav-bar">

<h2>PATIENT DETAILS</h2>

<div class="bar">

<ul>

<li>

<a href="add.html"><div class="add">Add Record</div></a>

</li>

<li>

<a href="update.html"><div class="upd">Update Record</div></a>

</li>

<li>

<a href="del.html"><div class="del">Delete Record</div></a>

</li>

<li>

<a href="http://localhost:8080/Project3/view"><div class="vew">Vie

w Record</div></a>

</li>

<li>

<a href="search.html"><div class="ser">Search Record</div></a>

</li>

</ul>

</div>

</div>

<div class = "form-bg">

<br><br><h1>HOSPITAL REGISTERATION FORM</h1>

<form name="form1" method="POST" action="http://localhost:8080/Project3/

AddRecord">

<table class="tb">

<thead>

<tr>

<th colspan = "2"> REGISTER WITH US</th>

</tr>

</thead>

<tr>

<td><label for="name">Name:</label> </td>

<td><input type="text" id="name" name="name" pattern="[a-zAZ]{

3,225}" required></td>

</tr>

<tr>

<td><label for="addr">Address: </label> </td>

<td><textarea type="text" id="addr" name="address" required></tex

tarea></td>

</tr>

<tr>

<td><label for="age">Age: </label> </td>

<td><input type="text" id="age" name="age" required>

</td>

</tr>

<tr>

<td><label for="gender">Gender:</label></td>

<td><input type="radio" id="male" name="gender" value="Male">

<label for="Male">Male</label> &emsp;

<input type="radio" id="female" name="gender" value="Female">

<label for="Female">Female</label> &emsp;

<input type="radio" id="other" name="gender" value="Other">

<label for="Other">Other</label> <br>

</td>

</tr>

<tr>

<td>Marital Status: </td>

<td>

<select name="mat" id="mat" required>

<option value="None">--Select one of the below--</option>

<option value="Single">Single</option>

<option value="Married">Married</option>

</select>

<br>

</td>

</tr>

<tr>

<td><label for="dov">Date Of Visit :</label></td>

<td><input type="date" id="dov" name="dov" required></td>

</tr>

<tr>

<td><label for="phone">Phone Number: </label></td>

<td><input type="tel" id="phone" name="Contact" required min=10 PATT

ERN=[0-9]{10}></td>

</tr>

<tfoot>

<tr>

<th><input type="submit" id="submit" value="Submit"></th>

<th><input type="reset" onclick="resetFunc()"><br><p id="res" clas

s="small"></p></th>

</tr>

</tfoot>

</table>

</form>

</div>

</body>

</html>

SERVLET CODE: addRecord.java [Project3]

import javax.servlet.\*;

import javax.servlet.http.\*;

import java.util.\*;

import java.io.\*;

import java.sql.\*;

public class addRecord extends HttpServlet

{

public void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException

{

String JDBC\_DRIVER = "com.mysql.jdbc.Driver";

String DB\_URL = "jdbc:mysql://localhost:3306/pat";

String USER = "root";

String PASS = "Sharan0276!";

response.setContentType("text/html");

PrintWriter pw = response.getWriter();

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

String mobile =request.getParameter("Contact");

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

int age = Integer.parseInt(request.getParameter("age"));

String ms = request.getParameter("mat");

String addr = "";

String[] values= request.getParameterValues("address");

for(int i=0; i<values.length; i++ )

addr += values[i]+" ";

Connection conn = null;

Statement stmt = null;

try{

//Open Connection

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

conn = DriverManager.getConnection(DB\_URL,USER,PASS);

PreparedStatement ps= conn.prepareStatement("Insert into Patients (Na

me, Age, Gender, Addr, Mstatus, Dov, Contact) values(?,?,?,?,?,?,?)");

ps.setString(1, name);

ps.setInt(2, age);

ps.setString(3, gender);

ps.setString(4, addr);

ps.setString(5, ms);

ps.setDate(6, java.sql.Date.valueOf(request.getParameter("dov")));

ps.setString(7, mobile);

ps.execute();

pw.println("<script>");

pw.println("alert(\"Patient has been registered...\")");

pw.println("location='http://localhost:8080/Project3/view'");

pw.println("</script>");

}

catch (Exception ex)

{

ex.printStackTrace();

}

pw.close();

}

}

HTML CODE: update.html [Project3]

<!DOCTYPE html>

<html>

<head>

<meta charset="utf-8">

<meta name="viewport" content="width=device-width, initialscale=

1, shrink-to-fit=no">

<link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/bootstrap@4.5.3/

dist/css/bootstrap.min.css" integrity="sha384-

TX8t27EcRE3e/ihU7zmQxVncDAy5uIKz4rEkgIXeMed4M0jlfIDPvg6uqKI2xXr2" crossorigin=

"anonymous">

<link rel="stylesheet" href="static/style2.css">

<link rel="stylesheet" href="static/style3.css">

<title>Update Record</title>

</head>

<body>

<div class="nav-bar">

<h2>PATIENT DETAILS</h2>

<div class="bar">

<ul>

<li>

<a href="add.html"><div class="add">Add Record</div></a>

</li>

<li>

<a href="update.html"><div class="upd">Update Record</div></a>

</li>

<li>

<a href="del.html"><div class="del">Delete Record</div></a>

</li>

<li>

<a href="http://localhost:8080/Project3/view"><div class="vew">Vie

w Record</div></a>

</li>

<li>

<a href="search.html"><div class="ser">Search Record</div></a>

</li>

</ul>

</div>

</div>

<div class = "form-bg">

<br><br><h1>HOSPITAL REGISTERATION FORM</h1>

<form name="form1" method="POST" action="http://localhost:8080/Project3/

UpdRecord">

<table class="tb">

<thead>

<tr>

<th colspan = "2"> ENTER THE ID OF PATIENT</th>

</tr>

</thead>

<tr>

<td><label for="pid">ID:</label> </td>

<td><input type="number" id="pid" name="pid" required></td>

</tr>

<tfoot>

<tr>

<th><input type="submit" id="submit" value="Submit"></th>

<th><input type="reset" onclick="resetFunc()"><br><p id="res" clas

s="small"></p></th>

</tr>

</tfoot>

</table>

</form>

</div>

</body>

</html>

SERVLET CODE: updateRecord.java [Project3]

import javax.servlet.\*;

import javax.servlet.http.\*;

import java.io.\*;

import java.util.\*;

import java.sql.\*;

public class updateRecord extends HttpServlet{

public void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException

{

Connection conn = null;

Statement stmt = null;

String JDBC\_DRIVER = "class.mysql.jdbc.Driver";

String DB\_URL = "jdbc:mysql://localhost:3306/pat";

String USER = "root";

String PASS = "Sharan0276!";

response.setContentType("text/html");

PrintWriter out = response.getWriter();

String id = request.getParameter("pid");

out.println("<html><head><meta charset='utf-

8'><meta name='viewport' content='width=device-width, initial-scale=1, shrinkto-

fit=no'>");

out.println("<title>View Patient Records</title>");

out.println("<link rel='stylesheet' href='static/style2.css'><link rel='st

ylesheet' href='static/style3.css'></head>");

out.println("<body><div class='navbar'><

h2>PATIENT DETAILS</h2><div class='bar'><ul><li><a href='http://localhos

t:8080/Project3/add.html'><div class='add'>Add Record</div></a></li><li><a hre

f=''http://localhost:8080/Project3/update.html''><div class='upd'>Update Recor

d</div></a></li><li><a href='http://localhost:8080/Project3/del.html'><div cla

ss='del'>Delete Record</div></a></li><li><a href='http://localhost:8080/Projec

t3/view'><div class='vew'>View Record</div></a></li><li><a href='http://localh

ost:8080/Project3/search.html'><div class='ser'>Search Record</div></a></li></

ul></div></div>");

try{

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

conn = DriverManager.getConnection(DB\_URL,USER,PASS);

String search = "SELECT \* FROM Patients WHERE Pid="+id;

stmt = conn.createStatement();

ResultSet rs = stmt.executeQuery(search);

rs.next();

out.println("<div class = 'formbg'><

br><br><h1>HOSPITAL REGISTERATION FORM</h1><form name='form1' method='POS

T' action='http://localhost:8080/Project3/UpdDb'>");

out.println("<table class='tb'><thead><tr><th colspan = '2'> UPDATE PATI

ENT DETAILS</th></tr></thead>");

out.println("<input type='hidden' id='pid' name='pid' value="+id+">");

out.println("<tr><td><label for='name'>Name:</label> </td><td><input typ

e='text' id='name' name='name' pattern='[a-zAZ]{

3,225}' value='"+rs.getString("Name")+"' readonly></td></tr>");

out.println("<tr><td><label for='addr'>Address: </label> </td><td><texta

rea type='text' id='addr' name='address' required>" + rs.getStr

ing("Addr")+ "</textarea></td></tr>");

out.println("<tr><td><label for='age'>Age: </label> </td><td><input type

='text' id='age' name='age' value='"+rs.getInt("Age")+"' readonly></td></tr>")

;

out.println("<tr><td><label for='gender'>Gender:</label> </td><td><input

type='text' id='gender' name='gender' value='"+rs.getString("Gender")+"' read

only></td></tr>");

out.println("<tr><td><label for='mat'>Marital Status:</label> </td><td><

input type='text' id='mat' name='mat' value='"+rs.getString("Mstatus")+"' read

only></td></tr>");

out.println("<tr><td><label for='dov'>Date Of Visit :</label></td><td><i

nput type='date' id='dov' name='dov' value='"+rs.getDate("Dov")+"' required><

/td></tr>");

out.println("<tr><td><label for='phone'>Contact:</label> </td><td><input

type='text' id='phone' name='phone' value='"+rs.getString("Contact")+"'></td>

</tr>");

out.println("<tfoot><tr><th><input type='submit' id='submit' value='Subm

it'></th></tr></tfoot>");

out.println("</table>");

out.println("</form>");

out.println("</div>");

out.println("</body>");

out.println("</html>");

}

catch(Exception E)

{

E.printStackTrace();

}

out.close();

}

}

SERVLET CODE: UpdDb.java [Project3]

import javax.servlet.\*;

import javax.servlet.http.\*;

import java.io.\*;

import java.util.\*;

import java.sql.\*;

public class UpdDb extends HttpServlet

{

public void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException

{

Connection conn = null;

Statement stmt = null;

String JDBC\_DRIVER = "class.mysql.jdbc.Driver";

String DB\_URL = "jdbc:mysql://localhost:3306/pat";

String USER = "root";

String PASS = "Sharan0276!";

response.setContentType("text/html");

PrintWriter out = response.getWriter();

int id = Integer.parseInt(request.getParameter("pid"));

try{

conn = DriverManager.getConnection(DB\_URL,USER,PASS);

PreparedStatement ps = conn.prepareStatement("UPDATE Patients SET Addr=?

, Dov=?, Contact=? WHERE Pid=?");

ps.setString(1, request.getParameter("address"));

ps.setString(2, request.getParameter("dov"));

ps.setString(3, request.getParameter("phone"));

ps.setInt(4, id);

ps.execute();

out.println("<script>");

out.println("alert(\"Patient Details Have Been Updated...\")");

out.println("location='http://localhost:8080/Project3/view'");

out.println("</script>");

}

catch(Exception E)

{

E.printStackTrace();

}

out.close();

}

}

HTML CODE: del.html [Project3]

<!DOCTYPE html>

<html>

<head>

<meta charset="utf-8">

<meta name="viewport" content="width=device-width, initialscale=

1, shrink-to-fit=no">

<link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/bootstrap@4.5.3/

dist/css/bootstrap.min.css" integrity="sha384-

TX8t27EcRE3e/ihU7zmQxVncDAy5uIKz4rEkgIXeMed4M0jlfIDPvg6uqKI2xXr2" crossorigin=

"anonymous">

<link rel="stylesheet" href="static/style2.css">

<link rel="stylesheet" href="static/style3.css">

<title>Welcome</title>

</head>

<body>

<div class="nav-bar">

<h2>PATIENT DETAILS</h2>

<div class="bar">

<ul>

<li>

<a href="add.html"><div class="add">Add Record</div></a>

</li>

<li>

<a href="update.html"><div class="upd">Update Record</div></a>

</li>

<li>

<a href="del.html"><div class="del">Delete Record</div></a>

</li>

<li>

<a href="http://localhost:8080/Project3/view"><div class="vew">Vie

w Record</div></a>

</li>

<li>

<a href="search.html"><div class="ser">Search Record</div></a>

</li>

</ul>

</div>

</div>

<div class = "form-bg">

<br><br><h1>HOSPITAL REGISTERATION FORM</h1>

<form name="form1" method="POST" action="http://localhost:8080/Project3/

DelRecord">

<table class="tb">

<thead>

<tr>

<th colspan = "2"> ENTER THE ID OF PATIENT</th>

</tr>

</thead>

<tr>

<td><label for="pid">ID:</label> </td>

<td><input type="number" id="pid" name="pid" required></td>

</tr>

<tfoot>

<tr>

<th><input type="submit" id="submit" value="Submit"></th>

<th><input type="reset" onclick="resetFunc()"><br><p id="res" clas

s="small"></p></th>

</tr>

</tfoot>

</table>

</form>

</div>

</body>

</html>

SERVLET CODE: delRecord.java [Project3]

import javax.servlet.\*;

import javax.servlet.http.\*;

import java.util.\*;

import java.io.\*;

import java.sql.\*;

public class delRecord extends HttpServlet

{

public void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException

{

String JDBC\_DRIVER = "com.mysql.jdbc.Driver";

String DB\_URL = "jdbc:mysql://localhost:3306/pat";

String USER = "root";

String PASS = "Sharan0276!";

response.setContentType("text/html");

PrintWriter pw = response.getWriter();

int id = Integer.parseInt(request.getParameter("pid"));

Connection conn = null;

Statement stmt = null;

try{

//Open Connection

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

conn = DriverManager.getConnection(DB\_URL,USER,PASS);

PreparedStatement ps= conn.prepareStatement("DELETE FROM Patients WHER

E Pid=?");

ps.setInt(1, id);

ps.executeUpdate();

pw.println("<script>");

pw.println("alert(\"Patient has been Deleted...\")");

pw.println("location='http://localhost:8080/Project3/view'");

pw.println("</script>");

}

catch (Exception ex)

{

ex.printStackTrace();

}

pw.close();

}

}

SERVLET CODE: viewRecords.java [Project3]

import java.io.\*;

import javax.servlet.\*;

import javax.servlet.http.\*;

import java.util.\*;

import java.sql.\*;

public class viewRecords extends HttpServlet

{

public void doGet(HttpServletRequest request, HttpServletResponse response)

throws IOException, ServletException

{

PrintWriter out = response.getWriter();

response.setContentType("text/html");

out.println("<html><head><meta charset='utf-

8'><meta name='viewport' content='width=device-width, initial-scale=1, shrinkto-

fit=no'>");

out.println("<title>View Patient Records</title>");

out.println("<link rel='stylesheet' href='static/style2.css'>");

out.println("<link rel='stylesheet' href='static/style3.css'></head>");

out.println("<body><div class='navbar'><

h2>PATIENT DETAILS</h2><div class='bar'><ul><li><a href='http://localhos

t:8080/Project3/add.html'><div class='add'>Add Record</div></a></li><li><a hre

f='http://localhost:8080/Project3/update.html'><div class='upd'>Update Record<

/div></a></li><li><a href='http://localhost:8080/Project3/del.html'><div class

='del'>Delete Record</div></a></li><li><a href='http://localhost:8080/Project3

/view'><div class='vew'>View Record</div></a></li><li><a href='http://localhos

t:8080/Project3/search.html'><div class='ser'>Search Record</div></a></li></ul

></div></div>");

out.println("<div>");

String JDBC\_DRIVER = "com.mysql.jdbc.Driver";

String DB\_URL = "jdbc:mysql://localhost:3306/pat";

String USER = "root";

String PASS = "Sharan0276!";

Connection conn = null;

Statement stmt = null;

try

{

//Open Connection

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

conn = DriverManager.getConnection(DB\_URL,USER,PASS);

stmt = conn.createStatement();

ResultSet rs = stmt.executeQuery("select \* from Patients");

out.println("<table border=1 width=50% height=50%>");

out.println("<tr><th>Patient\_ID</th><th>Name</th><th>Age</th><th>Gende

r</th><th>Address</th><th>Marital\_Status</th><th>DOV</th><th>Contact</th><tr>"

);

while (rs.next())

{

String id = rs.getString("Pid");

String nm = rs.getString("Name");

int age = rs.getInt("Age");

String g = rs.getString("Gender");

String addr = rs.getString("Addr");

String ms = rs.getString("Mstatus");

String cn = rs.getString("Contact");

out.println("<tr><td>" + id + "</td><td>" + nm + "</td><td>" + age

+ "</td><td>" + g+ "</td><td>" + addr + "</td><td>" + ms + "</td><td>" + rs.g

etDate("Dov") + "</td><td>" + cn + "</td></tr>");

}

out.println("</table>");

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

conn.close();

}

catch(Exception E)

{

E.printStackTrace();

}

out.close();

}

}

HTML CODE: search.html [Project3]

<!DOCTYPE html>

<html>

<head>

<meta charset="utf-8">

<meta name="viewport" content="width=device-width, initialscale=

1, shrink-to-fit=no">

<link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/bootstrap@4.5.3/

dist/css/bootstrap.min.css" integrity="sha384-

TX8t27EcRE3e/ihU7zmQxVncDAy5uIKz4rEkgIXeMed4M0jlfIDPvg6uqKI2xXr2" crossorigin=

"anonymous">

<link rel="stylesheet" href="static/style2.css">

<link rel="stylesheet" href="static/style3.css">

<title>Welcome</title>

</head>

<body>

<div class="nav-bar">

<h2>PATIENT DETAILS</h2>

<div class="bar">

<ul>

<li>

<a href="add.html"><div class="add">Add Record</div></a>

</li>

<li>

<a href="update.html"><div class="upd">Update Record</div></a>

</li>

<li>

<a href="del.html"><div class="del">Delete Record</div></a>

</li>

<li>

<a href="http://localhost:8080/Project3/view"><div class="vew">Vie

w Record</div></a>

</li>

<li>

<a href="search.html"><div class="ser">Search Record</div></a>

</li>

</ul>

</div>

</div>

<div class = "form-bg">

<br><br><h1>HOSPITAL REGISTERATION FORM</h1>

<form name="form1" method="POST" action="http://localhost:8080/Project3/

SearchRecord">

<table class="tb">

<thead>

<tr>

<th colspan = "2"> ENTER THE ID OF PATIENT</th>

</tr>

</thead>

<tr>

<td><label for="pid">ID:</label> </td>

<td><input type="number" id="pid" name="pid" required></td>

</tr>

<tfoot>

<tr>

<th><input type="submit" id="submit" value="Submit"></th>

<th><input type="reset" onclick="resetFunc()"><br><p id="res" clas

s="small"></p></th>

</tr>

</tfoot>

</table>

</form>

</div>

</body>

</html>

SERVLET CODE: searchRecord.java [Project3]

import javax.servlet.\*;

import javax.servlet.http.\*;

import java.io.\*;

import java.util.\*;

import java.sql.\*;

public class searchRecord extends HttpServlet{

public void doPost (HttpServletRequest request, HttpServletResponse response

) throws ServletException, IOException {

String JDBC\_DRIVER = "com.mysql.jdbc.Driver";

String DB\_URL = "jdbc:mysql://localhost:3306/pat";

String USER = "root";

String PASS = "Sharan0276!";

response.setContentType("text/html");

PrintWriter out = response.getWriter();

out.println("<html><head><meta charset='utf-

8'><meta name='viewport' content='width=device-width, initial-scale=1, shrinkto-

fit=no'>");

out.println("<title>View Patient Records</title>");

out.println("<link rel='stylesheet' href='static/style2.css'><link rel='st

ylesheet' href='static/style3.css'></head>");

out.println("<body><div class='navbar'><

h2>PATIENT DETAILS</h2><div class='bar'><ul><li><a href='http://localhos

t:8080/Project3/add.html'><div class='add'>Add Record</div></a></li><li><a hre

f='http://localhost:8080/Project3/update.html'><div class='upd'>Update Record<

/div></a></li><li><a href='http://localhost:8080/Project3/del.html'><div class

='del'>Delete Record</div></a></li><li><a href='http://localhost:8080/Project3

/view'><div class='vew'>View Record</div></a></li><li><a href='http://localhos

t:8080/Project3/search.html'><div class='ser'>Search Record</div></a></li></ul

></div></div>");

String id = request.getParameter("pid");

Connection conn = null;

try{

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

conn = DriverManager.getConnection(DB\_URL,USER,PASS);

String search = "SELECT \* FROM Patients WHERE Pid="+id;

Statement stmt = conn.createStatement();

ResultSet rs = stmt.executeQuery(search);

rs.next();

out.println("<table><tr><th colspan = 2>PATIENT DETAILS</th></tr>");

out.println("<tr><td>NAME</td><td>"+rs.getString("NAME")+"</td></tr>");

out.println("<tr><td>ADDRESS</td><td>"+rs.getString("Addr")+"</td></tr>");

out.println("<tr><td>AGE</td><td>"+rs.getInt("Age")+"</td></tr>");

out.println("<tr><td>GENDER</td><td>"+rs.getString("Gender")+"</td></tr>");

out.println("<tr><td>MARITAL STATUS</td><td>"+rs.getString("Mstatus")+"</td

></tr>");

out.println("<tr><td>DATE OF VISIT</td><td>"+rs.getString("Dov")+"</td></

tr>");

out.println("<tr><td>CONTACT</td><td>"+rs.getString("Contact")+"</td></tr>

");

out.println("</table>");

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

}

catch(Exception E)

{

E.printStackTrace();

}

out.close();

}

}

XML CODE: web.xml [Project3\WEB-INF]

<web-app>

<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>UpdRecord</servlet-name>

<servlet-class>updateRecord</servlet-class>

</servlet>

<servlet-mapping>

<servlet-name>UpdRecord</servlet-name>

<url-pattern>/UpdRecord</url-pattern>

</servlet-mapping>

<servlet>

<servlet-name>UpdDatabase</servlet-name>

<servlet-class>UpdDb</servlet-class>

</servlet>

<servlet-mapping>

<servlet-name>UpdDatabase</servlet-name>

<url-pattern>/UpdDb</url-pattern>

</servlet-mapping>

<servlet>

<servlet-name>DelRecord</servlet-name>

<servlet-class>delRecord</servlet-class>

</servlet>

<servlet-mapping>

<servlet-name>DelRecord</servlet-name>

<url-pattern>/DelRecord</url-pattern>

</servlet-mapping>

<servlet>

<servlet-name>ViewRecords</servlet-name>

<servlet-class>viewRecords</servlet-class>

</servlet>

<servlet-mapping>

<servlet-name>ViewRecords</servlet-name>

<url-pattern>/view</url-pattern>

</servlet-mapping>

<servlet>

<servlet-name>SerRecord</servlet-name>

<servlet-class>searchRecord</servlet-class>

</servlet>

<servlet-mapping>

<servlet-name>SerRecord</servlet-name>

<url-pattern>/SearchRecord</url-pattern>

</servlet-mapping>

</web-app>

SNAPSHOTS:

TABLE SCHEMA AND THE INITIAL SET OF RECORDS:

1. A Failed Login

2. Administrator Homepage. (Successful Login)

3. Adding a new Record to the Patient Database (Patient name : Ahmed)

4. Alert that displays the Patient has been added to the database

5. The View Record Page displays Ahmed as the new record added to the Database.

6. Search for Patient.

7. Details of the Searched Patient.

8. Deleting a Patient (Patient: Ahmed).

9. Alert displays that Patient has been deleted.

10. The updated Database without patient that has been recently deleted.

11. Updating a Patients record with id = 2.

12. Details of the Patient are displayed, The Admin can update the address, phone number and

date of visit.

13. Alert displays the Patient Details has been updated.

14. View Record shows the Patients updated record.

RECORDS IN PATIENTS TABLE AT END OF ALL OPERATIONS:

LEARNING OBJECTIVES:

1. From this assignment, I had learnt to create a servlet.

2. I was able to handle the request from the client and generate an appropriate response for it.

3. I learnt that servlets are an interface and it can be deployed on the server on create a

dynamic web page

4. The second part of the assignment helped me to handle multiple servlets.

5. I was able to manipulate the Patient Records in mysql , using the PreparedStatement and

Statement calls.

6. Similarly, I was able to retrieve data from the Patient Data Base in mysql and display them in

a readable format on HTTP page using the servlet response object.

Overall, I have learnt to create dynamic webpages using Java Servlets and to add, modify

and view records from a database, based on the input given by the user.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*