Date: 05/03/2024

**EXPERIMENT - 5.1**

**AIM:** Implement form validation in marriage application input.html form page using JavaScript:

1. Person name is required. 2. Person’s name must have a minimum of 5 characters. 3. Personage is required. 4. Person age must be a numeric value. 5. Personage must be there between 1 to 125

**PROGRAM:**

<!DOCTYPE html>

<html>

<head>

<title>Marriage Application Form</title>

<script>

function validateForm() {

var name = document.forms["marriageForm"]["personName"].value;

var age = document.forms["marriageForm"]["personAge"].value;

if (name == "") {

alert("Person name is required.");

return false;

}

if (name.length < 5) {

alert("Person’s name must have a minimum of 5 characters.");

return false;

}

if (age == "") {

alert("Person age is required.");

return false;

}

if (isNaN(age)) {

alert("Person age must be a numeric value.");

return false;

}

if (age < 1 || age > 125) {

alert("Person age must be between 1 to 125.");

return false;

}

return true;

}

</script>

</head>

<body>

<h2>Marriage Application Form</h2>

<form name="marriageForm" onsubmit="return validateForm()">

<label for="personName">Person Name:</label>

<input type="text" id="personName" name="personName"><br><br>

<label for="personAge">Person Age:</label>

<input type="text" id="personAge" name="personAge"><br><br>

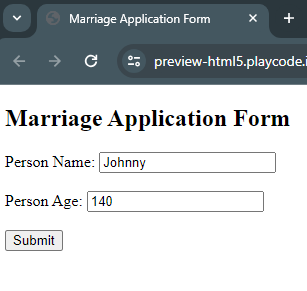
<input type="submit" value="Submit">

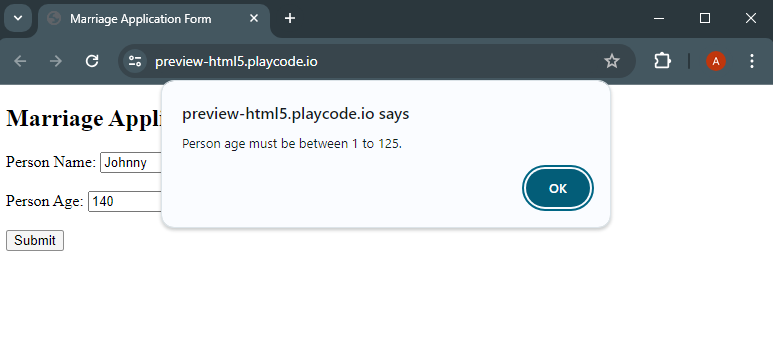
</form>

</body>

</html>

**OUTPUT:**





Date: 05/03/2024

**EXPERIMENT - 5.2**

**AIM:** Design Servlet Login and Logout using Cookies.

**PROGRAM:**

**File: index.html**

<!DOCTYPE html>

<html>

<head>

<meta charset="ISO-8859-1">

<title>Servlet Login Example</title>

</head>

<body>

<h1>Welcome to Login App by Cookie</h1>

<a href="login.html">Login</a>|

<a href="LogoutServlet">Logout</a>|

<a href="ProfileServlet">Profile</a>

</body>

</html>

**File: link.html**

<a href="login.html">Login</a> |

<a href="LogoutServlet">Logout</a> |

<a href="ProfileServlet">Profile</a>

<hr>

**File: login.html**

<form action="LoginServlet" method="post">

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

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

<input type="submit" value="login">

</form>

**File: LoginServlet.java**

package com.javatpoint;

import java.io.IOException;

import java.io.PrintWriter;

import javax.servlet.ServletException;

import javax.servlet.http.Cookie;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

public class LoginServlet extends HttpServlet {

    protected void doPost(HttpServletRequest request, HttpServletResponse response)

                           throws ServletException, IOException {

        response.setContentType("text/html");

        PrintWriter out=response.getWriter();

        request.getRequestDispatcher("link.html").include(request, response);

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

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

        if(password.equals("admin123")){

            out.print("You are successfully logged in!");

            out.print("<br>Welcome, "+name);

            Cookie ck=new Cookie("name",name);

            response.addCookie(ck);

        }else{

            out.print("sorry, username or password error!");

            request.getRequestDispatcher("login.html").include(request, response);

        }

        out.close();

    }

}

**File: LogoutServlet.java**

package com.javatpoint;

import java.io.IOException;

import java.io.PrintWriter;

import javax.servlet.ServletException;

import javax.servlet.http.Cookie;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

public class LogoutServlet extends HttpServlet {

    protected void doGet(HttpServletRequest request, HttpServletResponse response)

                        throws ServletException, IOException {

        response.setContentType("text/html");

        PrintWriter out=response.getWriter();

        request.getRequestDispatcher("link.html").include(request, response);

        Cookie ck=new Cookie("name","");

        ck.setMaxAge(0);

        response.addCookie(ck);

        out.print("you are successfully logged out!");

    }

}

**File: ProfileServlet.java**

package com.javatpoint;

import java.io.IOException;

import java.io.PrintWriter;

import javax.servlet.ServletException;

import javax.servlet.http.Cookie;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

public class ProfileServlet extends HttpServlet {

    protected void doGet(HttpServletRequest request, HttpServletResponse response)

                          throws ServletException, IOException {

        response.setContentType("text/html");

        PrintWriter out=response.getWriter();

        request.getRequestDispatcher("link.html").include(request, response);

        Cookie ck[]=request.getCookies();

        if(ck!=null){

         String name=ck[0].getValue();

        if(!name.equals("")||name!=null){

            out.print("<b>Welcome to Profile</b>");

            out.print("<br>Welcome, "+name);

        }

        }else{

            out.print("Please login first");

            request.getRequestDispatcher("login.html").include(request, response);

        }

        out.close();

    }

}

<?xml version="1.0" encoding="UTF-8"?>

<web-app xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"

xmlns="http://java.sun.com/xml/ns/javaee" xsi:schemaLocation="http://java.sun.com/xml/ns/javaee

http://java.sun.com/xml/ns/javaee/web-app\_2\_5.xsd" id="WebApp\_ID" version="2.5">

  <servlet>

    <description></description>

    <display-name>LoginServlet</display-name>

    <servlet-name>LoginServlet</servlet-name>

    <servlet-class>com.javatpoint.LoginServlet</servlet-class>

  </servlet>

  <servlet-mapping>

    <servlet-name>LoginServlet</servlet-name>

    <url-pattern>/LoginServlet</url-pattern>

  </servlet-mapping>

  <servlet>

    <description></description>

    <display-name>ProfileServlet</display-name>

    <servlet-name>ProfileServlet</servlet-name>

    <servlet-class>com.javatpoint.ProfileServlet</servlet-class>

  </servlet>

  <servlet-mapping>

    <servlet-name>ProfileServlet</servlet-name>

    <url-pattern>/ProfileServlet</url-pattern>

  </servlet-mapping>

  <servlet>

    <description></description>

    <display-name>LogoutServlet</display-name>

    <servlet-name>LogoutServlet</servlet-name>

    <servlet-class>com.javatpoint.LogoutServlet</servlet-class>

  </servlet>

  <servlet-mapping>

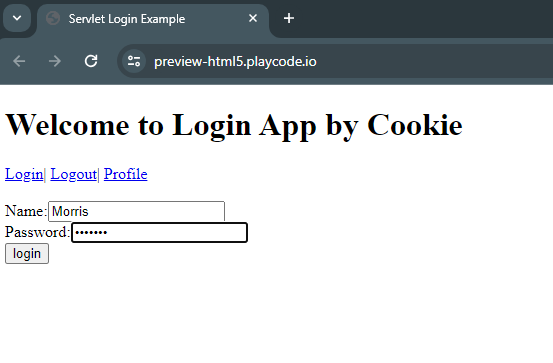
    <servlet-name>LogoutServlet</servlet-name>

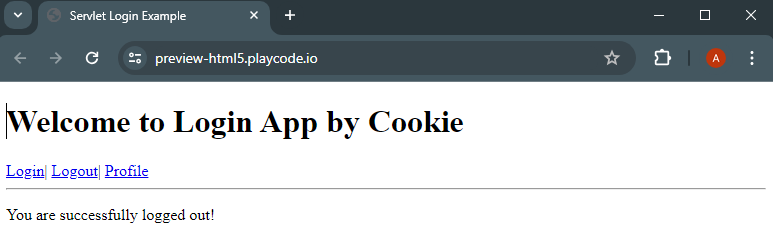
    <url-pattern>/LogoutServlet</url-pattern>

  </servlet-mapping>

</web-app>

**OUTPUT:**





Date: 05/03/2024

**EXPERIMENT - 5.3**

**AIM:** Create a servlet that prints all the request headers it receives, along with their associated values.

**PROGRAM:**

import java.io.IOException;

import java.io.PrintWriter;

import java.util.Collections;

import java.util.Enumeration;

import javax.servlet.ServletException;

import javax.servlet.annotation.WebServlet;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

@WebServlet("/RequestHeadersServlet")

public class RequestHeadersServlet extends HttpServlet {

private static final long serialVersionUID = 1L;

protected void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

response.setContentType("text/html");

PrintWriter out = response.getWriter();

out.println("<html><head><title>Request Headers</title></head><body>");

out.println("<h2>Request Headers:</h2>");

out.println("<ul>");

Enumeration<String> headerNames = request.getHeaderNames();

while (headerNames.hasMoreElements()) {

String headerName = headerNames.nextElement();

out.println("<li><strong>" + headerName + ":</strong> " + request.getHeader(headerName) + "</li>");

}

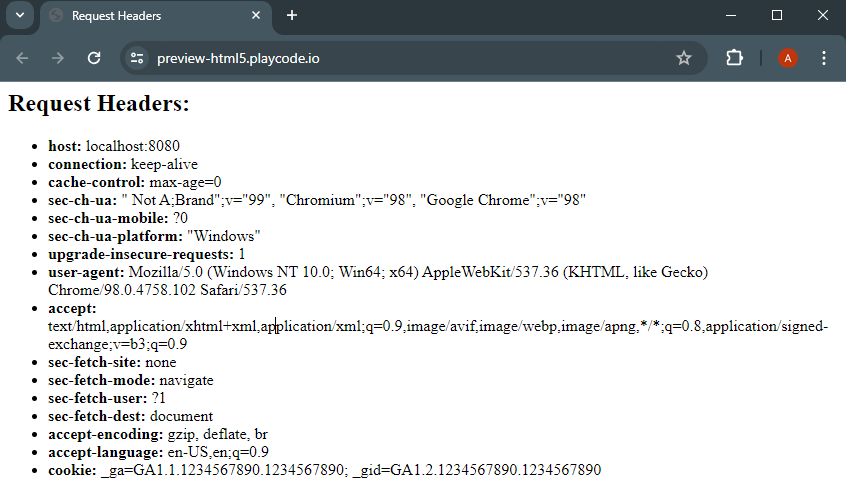
out.println("</ul>");

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

}

}

**OUTPUT:**



Date: 05/03/2024

**EXPERIMENT - 5.4**

**AIM:** Create a servlet that recognizes a visitor for the first time to a web application and responds by saying “Welcome, you are visiting for the first time”. When the page is visited for the second time, it should say “Welcome Back”.

**PROGRAM:**

import java.io.IOException;

import java.io.PrintWriter;

import javax.servlet.ServletException;

import javax.servlet.annotation.WebServlet;

import javax.servlet.http.Cookie;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

@WebServlet("/WelcomeServlet")

public class WelcomeServlet extends HttpServlet {

private static final long serialVersionUID = 1L;

protected void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

response.setContentType("text/html");

PrintWriter out = response.getWriter();

boolean isFirstTimeVisitor = true;

Cookie[] cookies = request.getCookies();

if (cookies != null) {

for (Cookie cookie : cookies) {

if ("visitedBefore".equals(cookie.getName())) {

isFirstTimeVisitor = false;

break;

}

}

}

// Set a cookie to remember the visitor

Cookie visitedCookie = new Cookie("visitedBefore", "true");

response.addCookie(visitedCookie);

// Respond with a welcome message

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

if (isFirstTimeVisitor) {

out.println("<h2>Welcome, you are visiting for the first time</h2>");

} else {

out.println("<h2>Welcome Back</h2>");

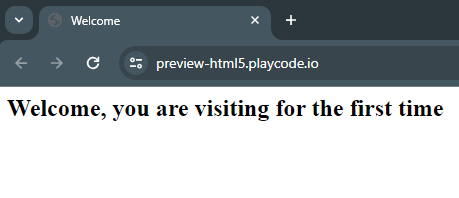
}

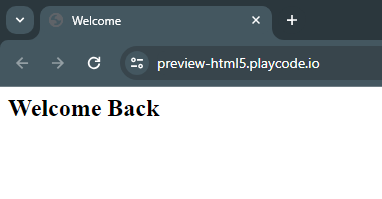
out.println("</body></html>");

}

}

**OUTPUT:**





Date: 12/03/2024

**EXPERIMENT - 6.1**

**AIM:** Create User Registration using JSP, Servlet and JDBC.

**PROGRAM:**

**Step 1**: Create database table for member

<code>CREATE TABLE `member` (

`uname` varchar(45) NOT NULL,

`password` varchar(45) DEFAULT NULL,

`email` varchar(45) DEFAULT NULL,

`phone` varchar(45) DEFAULT NULL,

PRIMARY KEY (`uname`)

) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4\_0900\_ai\_ci;</code>

**Step 2**: Create a memberRegister.jsp for the user registration

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

pageEncoding="ISO-8859-1"%>

<!DOCTYPE html>

<html>

<head>

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

<title>Insert title here</title>

</head>

<body>

<form action="Register" method="post">

<table>

<tr> <td>User Name</td>

<td><input type="text" name="uname"></td> </tr>

<tr> <td>Password</td>

<td><input type="password" name="password"></td> </tr> <tr>

<td>Email</td>

<td><input type="text" name="email"></td>

</tr> <tr>

<td>Phone</td>

<td><input type="text" name="phone"></td>

</tr>

<tr> <td>Submit</td>

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

</table>

</form>

</body>

</html>

**Step 3**: Create a dto class Member.java

public class Member {

ate String uname,password,email,phone;

public Member() {

super();

}

public Member(String uname, String password, String email, String phone) {

super();

this.uname = uname;

this.password = password;

this.email = email;

this.phone = phone;

}

public String getUname() {

return uname;

}

public void setUname(String uname) {

this.uname = uname;

}

public String getPassword() {

return password;

}

public void setPassword(String password) {

this.password = password;

}

public String getEmail() {

return email;

}

public void setEmail(String email) {

this.email = email;

}

public String getPhone() {

return phone;

}

public void setPhone(String phone) {

this.phone = phone;

} }

Step 4: Create a Servlet named Register.java

import java.io.IOException;

import javax.servlet.ServletException;

import javax.servlet.annotation.WebServlet;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

@WebServlet("/Register")

public class Register extends HttpServlet {

private static final long serialVersionUID = 1L;

public Register() {

super();

}

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

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

}

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

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

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

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

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

Member member=new Member(uname, password, email, phone);

RegisterDao rdao=new RegisterDao();

String result=rdao.insert(member);

response.getWriter().println(result);

} }

Step 5: Create a Dao class RegisterDao.java

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.PreparedStatement;

import java.sql.SQLException;

public class RegisterDao {

private String dburl = "jdbc:mysql://localhost:3306/userdb";

private String dbuname = "root";

private String dbpassword = "mysql";

private String dbdriver = "com.mysql.jdbc.Driver";

public void loadDriver(String dbDriver)

{

try {

Class.forName(dbDriver);

} catch (ClassNotFoundException e) {

e.printStackTrace();

} }

public Connection getConnection() {

Connection con = null;

try {

con = DriverManager.getConnection(dburl, dbuname, dbpassword);

} catch (SQLException e) {

e.printStackTrace(); }

return con; }

public String insert(Member member) {

loadDriver(dbdriver);

Connection con = getConnection();

String sql = "insert into member values(?,?,?,?)";

String result="Data Entered Successfully";

try {

PreparedStatement ps = con.prepareStatement(sql);

ps.setString(1, member.getUname());

ps.setString(2, member.getPassword());

ps.setString(3, member.getEmail());

ps.setNString(4, member.getPhone());

ps.executeUpdate();

} catch (SQLException e) {

result="Data Not Entered Successfully";

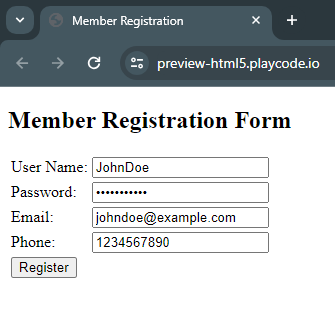
e.printStackTrace();

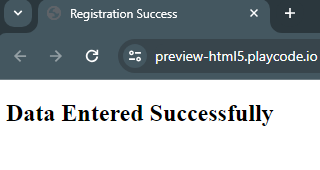
}

return result;

} }

**OUTPUT:**

****

****

Date: 12/03/2024

**EXPERIMENT - 6.2**

**AIM:** Create Employee Registration Form using a combination of JSP, Servlet, JDBC and MySQL Database.

**PROGRAM:**

**MySQL Database Setup**

CREATE TABLE `employee` (

`id` int(3) NOT NULL,

`first\_name` varchar(20) DEFAULT NULL,

`last\_name` varchar(20) DEFAULT NULL,

`username` varchar(250) DEFAULT NULL,

`password` varchar(20) DEFAULT NULL,

`address` varchar(45) DEFAULT NULL,

`contact` varchar(45) DEFAULT NULL,

PRIMARY KEY (`id`)

) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4\_0900\_ai\_ci;

**Create a JavaBean - Employee.java:**

import java.io.Serializable;

public class Employee implements Serializable {

private static final long serialVersionUID = 1 L;

private String firstName;

private String lastName;

private String username;

private String password;

private String address;

private String contact;

public String getFirstName() {

return firstName;

}

public void setFirstName(String firstName) {

this.firstName = firstName; }

public String getLastName() {

return lastName; }

public void setLastName(String lastName) {

this.lastName = lastName; }

public String getUsername() {

return username; }

public void setUsername(String username) {

this.username = username; }

public String getPassword() {

return password; }

public void setPassword(String password) {

this.password = password; }

public String getAddress() {

return address; }

public void setAddress(String address) {

this.address = address; }

public String getContact() {

return contact; }

public void setContact(String contact) {

this.contact = contact;

} }

**Create an EmployeeDao.java**

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.PreparedStatement;

import java.sql.SQLException;

import net.javaguides.registration.model.Employee;

public class EmployeeDao {

public int registerEmployee(Employee employee) throws ClassNotFoundException {

String INSERT\_USERS\_SQL = "INSERT INTO employee" +

" (id, first\_name, last\_name, username, password, address, contact) VALUES " +

" (?, ?, ?, ?, ?,?,?);";

int result = 0;

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

try (Connection connection = DriverManager

.getConnection("jdbc:mysql://localhost:3306/demo?useSSL=false", "root", "root");

PreparedStatement preparedStatement = connection.prepareStatement(INSERT\_USERS\_SQL)) {

preparedStatement.setInt(1, 1);

preparedStatement.setString(2, employee.getFirstName());

preparedStatement.setString(3, employee.getLastName());

preparedStatement.setString(4, employee.getUsername());

preparedStatement.setString(5, employee.getPassword());

preparedStatement.setString(6, employee.getAddress());

preparedStatement.setString(7, employee.getContact());

System.out.println(preparedStatement);

result = preparedStatement.executeUpdate();

} catch (SQLException e) {

printSQLException(e);

}

return result; }

private void printSQLException(SQLException ex) {

for (Throwable e: ex) {

if (e instanceof SQLException) {

e.printStackTrace(System.err);

System.err.println("SQLState: " + ((SQLException) e).getSQLState());

System.err.println("Error Code: " + ((SQLException) e).getErrorCode());

System.err.println("Message: " + e.getMessage());

Throwable t = ex.getCause();

while (t != null) {

System.out.println("Cause: " + t);

t = t.getCause();

} } } } }

**Create an EmployeeServlet.java**

package net.javaguides.employeemanagement.web;

import java.io.IOException;

import javax.servlet.ServletException;

import javax.servlet.annotation.WebServlet;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

import net.javaguides.employeemanagement.dao.EmployeeDao;

import net.javaguides.employeemanagement.model.Employee;

@WebServlet("/register")

public class EmployeeServlet extends HttpServlet {

private static final long serialVersionUID = 1 L;

private EmployeeDao employeeDao;

public void init() {

employeeDao = new EmployeeDao(); }

protected void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

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

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

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

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

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

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

Employee employee = new Employee();

employee.setFirstName(firstName);

employee.setLastName(lastName);

employee.setUsername(username);

employee.setPassword(password);

employee.setContact(contact);

employee.setAddress(address);

try {

employeeDao.registerEmployee(employee);

} catch (Exception e) {

e.printStackTrace(); }

response.sendRedirect("employeedetails.html"); } }

**Create an employeeregister.html**

<!DOCTYPE html>

<html>

<head>

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

<title>Insert title here</title>

</head>

<body>

<div align="center">

<h1>Employee Register Form</h1>

<form action="register" method="post">

<table style="with: 80%">

<tr> <td>First Name</td>

<td><input type="text" name="firstName" /></td> </tr>

<tr><td>Last Name</td>

<td><input type="text" name="lastName" /></td></tr>

<tr><td>UserName</td>

<td><input type="text" name="username" /></td></tr>

<tr><td>Password</td>

<td><input type="password" name="password" /></td> </tr>

<tr><td>Address</td>

<td><input type="text" name="address" /></td></tr>

<tr> <td>Contact No</td>

<td><input type="text" name="contact" /></td></tr>

</table>

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

</form>

</div>

</body>

</html>

**Create an employeedetail.html**

<!DOCTYPE html>

<html>

<head>

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

<title>Insert title here</title>

</head>

<body>

<h1>Employee successfully registered !</h1>

</body>

</html>

**OUTPUT:**

