

Worksheet 1

Index.html

```
<!DOCTYPE html>
<html>
<head>
  <title>Registration Form</title>
</head>
<body>
  <form name = "login form" method="post" action="RegistrationServlet">
    <label>First Name:</label><br>
    <input type="text" name="fname"><br>
    <label>Last Name:</label><br>
    <input type="text" name="lname"><br>
    <label>Password:</label><br>
    <input type="password" name="password"><br>
    <label>Address:</label><br>
    <input type="text" name="address"><br>
    <label>Email:</label><br>
    <input type="email" name="email"><br>
    <input type="submit" value="Submit">
  </form>
</body>
</html>
```

RegistrationServlet.java

```
import jakarta.servlet.ServletException;
import jakarta.servlet.annotation.WebServlet;
import jakarta.servlet.http.HttpServlet;
import jakarta.servlet.http.HttpServletRequest;
import jakarta.servlet.http.HttpServletResponse;
import java.io.IOException;
import java.io.PrintWriter;
@WebServlet(urlPatterns = { "/RegistrationServlet" })
public class RegistrationServlet extends HttpServlet {
  @Override
  protected void doPost(HttpServletRequest request, HttpServletResponse response)
    throws ServletException, IOException {
    String fname = request.getParameter("fname");
    String lname = request.getParameter("lname");
    String password = request.getParameter("password");
    String address = request.getParameter("address");
    String email = request.getParameter("email");
    PrintWriter writer = response.getWriter();
    String htmlResponse = "<html>";
    htmlResponse += "<h2>Your first name is: " + fname + "</h2>";
    htmlResponse += "<h2>Your last name is: " + lname + "</h2>";
    htmlResponse += "<h2>Your password is: " + password + "</h2>";
```

```
    htmlResponse += "<h2>Your address is: " + address + "</h2>";
    htmlResponse += "<h2>Your email is: " + email + "</h2>";
    htmlResponse += "</html>";
    writer.println(htmlResponse);
}
}
```

Worksheet 2

Index.html

```
<!DOCTYPE html>
<html>
  <head>
    <title>Login page</title>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <style>
input[type=text], select {
  padding: 12px 18px;
  margin: 6px 0;
  display: block;
  border: 1px solid #ccc;
  border-radius: 4px;
}

input[type=submit] {
  background-color: #4CAF50;
  color: white;
  padding: 8px 16px;
  margin: 4px;
  border: none;
  border-radius: 4px;
  cursor: pointer;
}

input[type=submit]:hover {
  background-color: #45a049;
}

div.container {
  border-radius: 5px;
  border-style: solid;
  background-color: #f2f2f2;
  padding: 20px;
  width: 400px;
}
</style>
```

```

</head>
<body>
<div class="container">
  <h3>Please enter your username and password</h3>
  <form action="servlet6" method="get">
    Username
    <input type="text" name="t1" placeholder="Your username..">
    Password
    <input type="text" name="pass" placeholder="Your password..">
    <input type="submit" value="Submit">
  </form>
</div>
</body>
</html>

```

servlet6.java

```

import jakarta.servlet.ServletException;
import jakarta.servlet.http.HttpServlet;
import jakarta.servlet.http.HttpServletRequest;
import jakarta.servlet.http.HttpServletResponse;
import jakarta.servlet.http.HttpSession;
import java.io.IOException;
import java.io.PrintWriter;
import java.util.Date;

public class servlet6 extends HttpServlet {
    @Override
    protected void doGet(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException {
        //processRequest(request, response);
        try (PrintWriter out = response.getWriter()) {

            HttpSession Session=request.getSession();
            String str=request.getParameter("t1");
            out.println("welcome "+ str + " to this servlet page");
            out.println("Session ID: " + Session.getId());
            out.println("Creation Time: " + new Date(Session.getCreationTime()));
            out. println("Last Accessed Time: " + new Date(Session.getLastAccessedTime()));

        }
    }
}

```

Worksheet 3.1

Index.html

```

<html>
<head>

```

```

<title>RefreshTime</title>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
</head>
<body>
<div>
    <form action="Refresh" method="post">
        Click to view Current Time and Auto Page Refresh using Servlet<br><br>
        <input type="submit" value="Submit">
    </form>
</div>
</body>
</html>

```

Refresh.java

```

import jakarta.servlet.ServletException;
import jakarta.servlet.http.HttpServlet;
import jakarta.servlet.http.HttpServletRequest;
import jakarta.servlet.http.HttpServletResponse;
import java.io.IOException;
import java.io.PrintWriter;
import java.util.Calendar;
import java.util.GregorianCalendar;

public class Refresh extends HttpServlet {

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

        response.setIntHeader("Refresh", 5);
        response.setContentType("text/html");
        Calendar calendar = new GregorianCalendar();

        String am_pm;
        int hour = calendar.get(Calendar.HOUR);
        int minute = calendar.get(Calendar.MINUTE);
        int second = calendar.get(Calendar.SECOND);

        if(calendar.get(Calendar.AM_PM) == 0)
        {
            am_pm = "AM";
        }
        else
        {
            am_pm = "PM";
        }
        String C = hour+":"+ minute+":"+ second +""+ am_pm;
    }
}

```

```

PrintWriter out = response.getWriter();
String title = "Auto Page Refresh using Servlet";

String htmlResponse = "<html>";
htmlResponse += "<head><title>" + title + "</title></head>";
htmlResponse += "<body bgcolor = \"#f2f2f2\">";
htmlResponse += "<h1 align = \"center\">" + title + "</h1>";
htmlResponse += "<p>Current Time is: " + C + "</p>";
htmlResponse += "</body></html>";

    out.println(htmlResponse);
}

@Override
public void doPost(HttpServletRequest request, HttpServletResponse response) throws
ServletException, IOException {
    doGet(request, response);
}
}

```

Worksheet 3.2

Index.html

```

<!DOCTYPE html>
<html>
  <head>
    <title>Index page</title>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
  </head>
  <body>
    <center>
      <form action ="servlet8" method ="post">
        <table>
          <tr><td> Username:</td><td> <input type ="text" name="user"/></td></tr>
          <tr><td> Password:</td><td> <input type ="password" name="pass"/></td></tr>
          <tr><td> </td><td> <input type ="submit" value ="Submit"/></td></tr>
        </table>
      </form>
    </center>
  </body>
</html>

```

servlet8.java

```

import jakarta.servlet.RequestDispatcher;
import jakarta.servlet.ServletException;
import jakarta.servlet.http.HttpServlet;
import jakarta.servlet.http.HttpServletRequest;
import jakarta.servlet.http.HttpServletResponse;

```

```

import java.io.IOException;
import java.io.PrintWriter;

public class servlet8 extends HttpServlet {

@Override
protected void doPost(HttpServletRequest request, HttpServletResponse response)
    throws ServletException, IOException {
    //processRequest(request, response);

    response.setContentType("Text/html");
    PrintWriter out = response.getWriter();

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

    if(name.equals("shubham") && pass.equals("123"))
    {
        RequestDispatcher rd = request.getRequestDispatcher("servlet9");
        rd.forward(request,response);
    }
    else
    {
        out.println("username or password is incorrect.....");
    }
}
}

```

servlet9.java

```

import jakarta.servlet.ServletException;
import jakarta.servlet.http.HttpServlet;
import jakarta.servlet.http.HttpServletRequest;
import jakarta.servlet.http.HttpServletResponse;
import java.io.IOException;
import java.io.PrintWriter;

public class servlet9 extends HttpServlet {

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

    response.setContentType("Text/html");
    PrintWriter out = response.getWriter();

    String username = request.getParameter("user");
    String htmlResponse = "<html>";
    htmlResponse += "<head><title>" + username + "</title></head>";

```

```

htmlResponse += "<body bgcolor = \"#f2f2f2\">";
htmlResponse += "<h1>" + "Hello....." + username + "</h1>";
htmlResponse += "</body></html>";

out.println(htmlResponse);
}
}

```

Worksheet 4

Index.jsp

```

<% @page contentType="text/html" pageEncoding="UTF-8"% >
<!DOCTYPE html>
<html>
<head>
    <meta charset="UTF-8">
    <title>Login</title>
    <style>
        body {
            font-family: Arial, sans-serif;
            background: url("wh.jpg") center no-repeat fixed;
            background-size: 100% 100%;
        }
        #d1 {
            width: 400px;
            border-radius: 5px;
            margin: 20px;
        }
        #d2 {
            width: 30%;
            margin-top: 100px;
            background-color: #fff;
            padding: 20px;
            border-radius: 10px;
            box-shadow: 0px 0px 20px rgba(0,0,0,0.1);
        }
        #d1,#d2
        {
            float:left;
        }
        img{
            height: 180px;
            width: 200px;
        }
        h1 {
            text-align: center;
            margin-bottom: 20px;

```

```
        color: #4CAF50;
    }
    label {
        display: block;
        margin-bottom: 5px;
        color: #666;
    }
    input[type="text"], input[type="password"] {
        width: 100%;
        padding: 12px 20px;
        margin: 8px 0;
        box-sizing: border-box;
        border: none;
        border-radius: 4px;
        background-color: #f2f2f2;
    }
    input[type="submit"] {
        background-color: #4CAF50;
        color: #fff;
        padding: 12px 20px;
        border: none;
        border-radius: 4px;
        cursor: pointer;
    }
    input[type="submit"]:hover {
        background-color: #45a049;
    }
}
```

</style>

</head>

<body>

<div>

<div id="d1">

</div>

<div id="d2">

<h1>Login</h1>

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

<label for="username">Username</label>

<input type="text" id="username" name="uname" required>

<label for="password">Password</label>

<input type="password" id="password" name="pwd" required>

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

</form>

</div>

</div>


```
<script>
</script>
</body>
</html>
```

Registration.jsp

```
<% @page contentType="text/html" pageEncoding="UTF-8"% >
<!DOCTYPE html>
<html>
    <head>
        <meta name="viewport" content="width=device-width, initial-scale=1.0">
        <meta charset="utf-8">
        <title>Data entry application</title>
    <style>
body {
    font-family: Arial, sans-serif;
    background: url("wh.jpg") center no-repeat fixed;
    background-size: 100% 100%;
}
ul {
    list-style-type: none;
    margin: 0;
    padding: 0;
    overflow: hidden;
    background-color: #333;
}

li {
    float: left;
}

li a {
    display: block;
    color: white;
    text-align: center;
    padding: 14px 16px;
    text-decoration: none;
}

li a:hover {
    background-color: #111;
}

input[type="text"]{
    padding: 12px 20px;
    margin: 8px 0;
    box-sizing: border-box;
```

```

        border: none;
        border-radius: 4px;
        background-color: #f2f2f2;
    }
::-webkit-input-placeholder
{
    color: #b9babd;
}
input[type="submit"] {
    background-color: #4CAF50;
    color: #fff;
    padding: 10px 18px;
    border: none;
    border-radius: 4px;
    cursor: pointer;
}
input[type="submit"]:hover {
    background-color: #45a049;
}
.container {
    width: 30%;
    margin: 0 auto;
    background-color: #fff;
    padding: 20px;
    border-radius: 10px;
    box-shadow: 0px 0px 20px rgba(0,0,0,0.1);
}
label {
    display: block;
    margin-bottom: 5px;
    color: #666;
}
img {
    margin: 0 100% auto;
    width: 50%;
    height: 50%;
    border: 1px solid #000;
    border-radius: 4px;
}
</style>
</head>

<body>
    <ul>
        <li><a href="Registration.jsp">Registration</a></li>
        <li><a href="userdata.jsp">User Data</a></li>
        <li><a href="index.jsp">logout</a></li>
    
```

```

        </ul>
        <br>
        <div>
            <div class="container">
<h2 align="center"><font color="red">Registration form</font></h2>
<table>
<tr>
<td>
<table>
    <form action="insertDB.jsp" method="post">
<tr>
<td>

</td>
</tr>

<tr>
<td><label for="name">Name: </label></td>
<td><input maxlength="50" name="name" type="text" placeholder="enter your Name"/></td>
</tr>

<tr>
<td><label for="id">UID: </label></td>
<td><input maxlength="50" name="id" type="text" placeholder="please enter your UID" /></td>
</tr>

<tr>
<td><label for="course">Course: </label></td>
<td><input maxlength="50" name="course" type="text" placeholder="enter your Course"/></td>
</tr>

<tr>
<td><label for="branch">Branch: </label></td>
<td><input maxlength="50" name="branch" type="text" placeholder="enter your Branch"/></td>
</tr>

<tr>
<td><label for="phone">Phone: </label></td>
<td><input maxlength="10" name="phone" type="text" placeholder="enter your Phone no."/></td>
</tr>

<tr>
<td align="center"><input name="Submit" type="Submit" value="SUBMIT" /></td>
</tr>
</table>
</td>
</tr>

```

```
</table>
</form>
</div>
    </div>
</body>
</html>
```

Userdata.jsp

```
<% @page contentType="text/html" pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
    <head>
        <meta name="viewport" content="width=device-width, initial-scale=1.0">
        <meta charset="utf-8">
        <title>User Data</title>
    <style>
body {
    font-family: Arial, sans-serif;
    background: url("wh.jpg") center no-repeat fixed;
    background-size: 100% 100%;
}
ul {
    list-style-type: none;
    margin: 0;
    padding: 0;
    overflow: hidden;
    background-color: #333;
}

li {
    float: left;
}

li a {
    display: block;
    color: white;
    text-align: center;
    padding: 14px 16px;
    text-decoration: none;
}

li a:hover {
    background-color: #111;
}
table {
    border-collapse: collapse;
    width: 100%;
```

```

}
th, td {
    border: 1px solid black;
    padding: 8px;
    text-align: left;
    padding: 10px 18px;
    margin: 6px 0;
}

th {
    background-color: #ddd;
}

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

.btn1 {
    display: block;
    width: 60px;
    height: 16px;
    background: #ec243b;
    padding: 6px;
    text-align: center;
    border-radius: 4px;
    color: white;
    line-height: 16px;
    text-decoration: none;
}

.btn {
    display: block;
    width: 60px;
    height: 16px;
    background: #3F9B0B;
    padding: 6px;
    text-align: center;
    border-radius: 4px;
    color: white;
    line-height: 16px;
    text-decoration: none;
}

</style>
</head>

<body>
    <ul>
        <li><a href="Registration.jsp">Registration</a></li>
        <li><a href="userdata.jsp">User Data</a></li>
    
```

```

        <li><a href="index.jsp">logout</a></li>
    </ul>
    <br>
    <div>
<div>
    <h3>User Data Table</h3>
    </div>
</div>
<div>
    <table>
        <thead>
            <tr>
                <th>Name</th>
                <th>UID</th>
                <th>Course</th>
                <th>Branch</th>
                <th>Phone</th>
                <th>Action</th>
            </tr>
        </thead>
        <tbody>
<% @ page import="java.sql.*" %>
<%
    Connection conn = null;
    PreparedStatement pstmt = null;
    ResultSet rs = null;
    try {
        Class.forName("oracle.jdbc.driver.OracleDriver");
        conn = DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:xe", "system",
"system1");
        String sql = "select * from SHUB123.regtable";
        pstmt = conn.prepareStatement(sql);
        rs = pstmt.executeQuery();
        while (rs.next()) {
            out.print("<tr>");
            out.println("<td>" + rs.getString("name") + "</td>");
            out.println("<td>" + rs.getString("id") + "</td>");
            out.println("<td>" + rs.getString("course") + "</td>");
            out.println("<td>" + rs.getString("branch") + "</td>");
            out.println("<td>" + rs.getString("phone") + "</td>");
            out.print("<td>");
            out.print("<a class=\"btn\" href=\"useredit.jsp?id=" + rs.getString("id") + "\">Edit</a>");
            out.print("<a class=\"btn1\" href=\"userdelete.jsp?id=" + rs.getString("id") + "\">Delete</a>");
            out.print("</td>");
            out.print("</tr>");
        }
    } catch (ClassNotFoundException e) {

```

```

        e.printStackTrace();
    } catch (SQLException e) {
        e.printStackTrace();
    } finally {
        if (rs != null) {
            try {
                rs.close();
            } catch (SQLException e) {
                e.printStackTrace();
            }
        }
        if (pstmt != null) {
            try {
                pstmt.close();
            } catch (SQLException e) {
                e.printStackTrace();
            }
        }
        if (conn != null) {
            try {
                conn.close();
            } catch (SQLException e) {
                e.printStackTrace();
            }
        }
    }
%>

</tbody>
</table>
</div>
</div>
</body>
</html>

```

insertDB.jsp

```

<% @page contentType="text/html" pageEncoding="UTF-8"%>
<% @ page import="java.sql.*" %>
<%

```

```

String name = request.getParameter("name");
String id = request.getParameter("id");
String course = request.getParameter("course");
String branch = request.getParameter("branch");
String phone = request.getParameter("phone");

```

```

Connection conn = null;

```

```

PreparedStatement stmt = null;

```

```

String sql = "INSERT INTO SHUB123.regtable(name,id,course,branch,phone) values(?, ?, ?, ?, ?)";

```

```

try {
Class.forName("oracle.jdbc.driver.OracleDriver");
conn = DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:xe", "system", "system1");
stmt = conn.prepareStatement(sql);
stmt.setString(1, name);
stmt.setString(2, id);
stmt.setString(3, course);
stmt.setString(4, branch);
stmt.setString(5, phone);
stmt.executeUpdate();
stmt.close();
conn.close();
response.sendRedirect("userdata.jsp");
} catch (SQLException se) {
se.printStackTrace();
} catch (Exception e) {
e.printStackTrace();
} finally {
try {
if (stmt != null) stmt.close();
if (conn != null) conn.close();
} catch (SQLException se) {
se.printStackTrace();
}
}
%>

```

Servletvalidation.java

```

import jakarta.servlet.RequestDispatcher;
import jakarta.servlet.ServletException;
import jakarta.servlet.http.HttpServlet;
import jakarta.servlet.http.HttpServletRequest;
import jakarta.servlet.http.HttpServletResponse;
import java.io.IOException;
import java.io.PrintWriter;
public class Servletvalidation extends HttpServlet {

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

    }

    @Override
    protected void doGet(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException {
        //processRequest(request, response);
    }
}

```



```

@Override
protected void doPost(HttpServletRequest request, HttpServletResponse response)
    throws ServletException, IOException {
    //processRequest(request, response);
    response.setContentType("text/html;charset=UTF-8");
    try (PrintWriter out = response.getWriter()) {
        String n=request.getParameter("uname");
        String p=request.getParameter("pwd");

        if(n.equals("shubham") && p.equals("123"))
        {
            out.println("suscessfully login...");
            RequestDispatcher rd=request.getRequestDispatcher("Registration.jsp");
            rd.forward(request, response);
        }
        else
        {
            out.println("login falied...");
            RequestDispatcher rd=request.getRequestDispatcher("index.jsp");
            rd.forward(request, response);
        }
        out.close();
    }
}
}

```

Worksheet 5

Index.jsp

```

<% @page contentType="text/html" pageEncoding="UTF-8"% >
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<title>Registration</title>
</head>
<body>
<form method="post" action="RegisterServlet">
<label for="username">Username:</label>
<input type="text" id="username" name="username" required><br>
<label for="password">Password:</label>
<input type="password" id="password" name="password" required><br>
<input type="submit" value="Register">
</form>
</body>
</html>

```

Registraionservlet.java

```
import jakarta.servlet.ServletException;
import jakarta.servlet.http.HttpServlet;
import jakarta.servlet.http.HttpServletRequest;
import jakarta.servlet.http.HttpServletResponse;
import jakarta.servlet.http.HttpSession;
import java.io.IOException;

public class RegisterServlet extends HttpServlet {
    @Override
    protected void doPost(HttpServletRequest request, HttpServletResponse
response)
    throws ServletException, IOException {
        String username = request.getParameter("username");
        String password = request.getParameter("password");
        HttpSession session = request.getSession();
        session.setAttribute("username", username);
        session.setAttribute("password", password);
        response.sendRedirect("Login.jsp");
    }
}
```

Login.jsp

```
<% @page contentType="text/html" pageEncoding="UTF-8"% >
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<title>Login</title>
</head>
<body>
<form method="post" action="LoginServlet">
<label for="username">Username:</label>
<input type="text" id="username" name="username" required><br>
<label for="password">Password:</label>
<input type="password" id="password" name="password" required><br>
<input type="submit" value="Login">
</form>
</body>
</html>
```

Loginservelet.java

```
import jakarta.servlet.ServletException;
import jakarta.servlet.http.HttpServlet;
import jakarta.servlet.http.HttpServletRequest;
import jakarta.servlet.http.HttpServletResponse;
import jakarta.servlet.http.HttpSession;
```

```

import java.io.IOException;
public class LoginServlet extends HttpServlet {
    @Override
    protected void doPost(HttpServletRequest request, HttpServletResponse
    response)
    throws ServletException, IOException {
        String username = request.getParameter("username");
        String password = request.getParameter("password");
        HttpSession session = request.getSession();
        String savedUsername = (String) session.getAttribute("username");
        String savedPassword = (String) session.getAttribute("password");
        if (username.equals(savedUsername) && password.equals(savedPassword)) {
            session.setAttribute("loggedIn", true);
            response.sendRedirect("welcome.jsp");
        } else {
            response.sendRedirect("Login.jsp");
        }
    }
}

```

welcome.jsp

```

<% @page contentType="text/html" pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
<title>welcome Page</title>
</head>
<body>
<h1>This is a welcome page. </h1>
<form action="Logout.jsp" method="post">
<input type="submit" value="Loginout">
</form>
</body>
</html>

```

Logout.jsp

```

<% @page contentType="text/html" pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<title>Logout</title>
</head>
<body>
<h1>You have successfully logged out!</h1>

```

```
<form action="Login.jsp" method="post">  
<input type="submit" value="Login again">  
</form>  
</body>  
</html>
```