

Academic Year: 2024-25
Course Code: MC506

Semester: II

Class: FYMCA
Course Name: Advanced Java Programming

Atharva Vasant Angre

Practical 2

2024510001

Experiment No.2

Date: 30.01.2025

Aim: Implementation of real-world problem based on JSP designing concept

CO Mapping – CO 2

Objective:

1. To develop the JSP based dynamic web pages.
2. To show to and fro of data from database to JSP

Lab Exercise:

To Create a Form Validation Page using JSP.

Code:

Index.jsp

```
<%@ page language="java" contentType="text/html; charset=UTF-8" pageEncoding="UTF-8"%>
<%
    String user = (String) session.getAttribute("username");
    if (user == null) {
        response.sendRedirect("register.jsp");
        return;
    }
%>
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Job Portal - Welcome</title>
    <style>
```

```
body {  
    font-family: 'Segoe UI', Tahoma, Geneva, Verdana, sans-serif;  
    line-height: 1.6;  
    color: #333;  
    background-color: #f5f5f5;  
    padding: 2rem;  
    text-align: center;  
}  
  
.container {  
    max-width: 600px;  
    margin: 0 auto;  
    background: #fff;  
    padding: 2rem;  
    border-radius: 8px;  
    box-shadow: 0 2px 4px rgba(0, 0, 0, 0.1);  
}  
  
h2 {  
    color: #2c5282;  
}  
  
.btn {  
    display: inline-block;  
    background-color: #2c5282;  
    color: white;  
    padding: 0.75rem 1.5rem;  
    text-decoration: none;  
    border-radius: 4px;  
    margin-top: 1rem;  
}  
  
.btn:hover {  
    background-color: #2b6cb0;
```

```
    }  
  
    </style>  
</head>  
<body>  
    <div class="container">  
        <h2>Welcome, <%= user %>!</h2>  
  
        <p>Welcome to our Job Portal. You can now proceed to submit your job application.</p>  
  
        <a href="jobApplication.jsp" class="btn">Apply for Job</a>  
  
    </div>  
</body>  
</html>
```

Register.jsp

```
<%@ page language="java" contentType="text/html; charset=UTF-8" pageEncoding="UTF-8"%>  
<%  
  
    String username = request.getParameter("username");  
    String email = request.getParameter("email");  
    String password = request.getParameter("password");  
    String confirmPassword = request.getParameter("confirmPassword");  
    String usernameError = "";  
    String emailError = "";  
    String passwordError = "";  
    String confirmPasswordError = "";  
    boolean hasErrors = false;  
  
    if (request.getMethod().equals("POST")) {  
        if (username == null || username.trim().isEmpty()) {  
            hasErrors = true;  
            usernameError = "Username is required.";  
        }  
    }  
}
```

```
if (email == null || !email.matches("[A-Za-z0-9._%+-]+@[A-Za-z0-9.-]+\.[A-Za-z]{2,}$")) {
    hasErrors = true;
    emailError = "Valid email is required.";
}

if (password == null || password.length() < 6) {
    hasErrors = true;
    passwordError = "Password must be at least 6 characters long.";
}

if (confirmPassword == null || !confirmPassword.equals(password)) {
    hasErrors = true;
    confirmPasswordError = "Passwords do not match.";
}

if (!hasErrors) {
    // If validation passes, then forward to processing page
    request.getRequestDispatcher("registerProcess.jsp").forward(request, response);
    return;
}

%>
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>User Registration</title>
    <style>
        body {
            font-family: 'Segoe UI', Tahoma, Geneva, Verdana, sans-serif;
            background-color: #f5f5f5;
```

Academic Year: 2024-25
Course Code: MC506

Semester: II

Class: FYMCA
Course Name: Advanced Java Programming

Atharva Vasant Angre

Practical 2

2024510001

```
padding: 2rem;
}
.form-container {
  max-width: 600px;
  margin: 0 auto;
  background: #fff;
  padding: 2rem;
  border-radius: 8px;
  box-shadow: 0 2px 4px rgba(0, 0, 0, 0.1);
}
h2 {
  color: #2c5282;
  text-align: center;
}
label {
  font-weight: 600;
  display: block;
  margin-top: 0.5rem;
}
input {
  width: 100%;
  padding: 0.75rem;
  border: 1px solid #e2e8f0;
  border-radius: 4px;
  margin-bottom: 0.5rem;
}
.error {
  color: #e53e3e;
  font-size: 0.875rem;
}
```

```
button {  
    background-color: #2c5282;  
    color: white;  
    padding: 0.75rem;  
    border: none;  
    border-radius: 4px;  
    cursor: pointer;  
    margin-top: 1rem;  
    width: 100%;  
}  
button:hover {  
    background-color: #2b6cb0;  
}  
</style>  
<script>  
    function validateForm(event) {  
        event.preventDefault();  
        let hasErrors = false;  
  
        // Clear previous errors  
        document.querySelectorAll('.error').forEach(error => error.textContent = "");  
  
        const username = document.getElementById('username').value.trim();  
        if (!username) {  
            document.getElementById('usernameError').textContent = 'Username is required.';  
            hasErrors = true;  
        }  
  
        const email = document.getElementById('email').value.trim();  
        const emailRegex = /^[A-Za-z0-9._%+-]+@[A-Za-z0-9.-]+\.[A-Za-z]{2,}$/;
```

```
if (!email || !emailRegex.test(email)) {  
    document.getElementById('emailError').textContent = 'Valid email is required.';  
    hasErrors = true;  
}  
  
const password = document.getElementById('password').value;  
if (!password || password.length < 6) {  
    document.getElementById('passwordError').textContent = 'Password must be at least 6  
characters long.';  
    hasErrors = true;  
}  
  
const confirmPassword = document.getElementById('confirmPassword').value;  
if (password !== confirmPassword) {  
    document.getElementById('confirmPasswordError').textContent = 'Passwords do not  
match.';  
    hasErrors = true;  
}  
  
if (!hasErrors) {  
    event.target.submit();  
}  
}  
  
</script>  
</head>  
<body>  
    <div class="form-container">  
        <h2>User Registration</h2>  
        <form action="<%= request.getRequestURI() %>" method="POST"  
onsubmit="validateForm(event)">  
            <label for="username">Username:</label>
```

```
<input type="text" id="username" name="username" value="<%= username != null ?
username : "" %>" placeholder="Enter username">

<div class="error" id="usernameError"><%= usernameError %></div>

<label for="email">Email:</label>

<input type="email" id="email" name="email" value="<%= email != null ? email : "" %>"
placeholder="Enter your email">

<div class="error" id="emailError"><%= emailError %></div>

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

<input type="password" id="password" name="password" placeholder="Enter password">

<div class="error" id="passwordError"><%= passwordError %></div>

<label for="confirmPassword">Confirm Password:</label>

<input type="password" id="confirmPassword" name="confirmPassword"
placeholder="Confirm password">

<div class="error" id="confirmPasswordError"><%= confirmPasswordError %></div>

<button type="submit">Register</button>

</form>

</div>

</body>

</html>
```

registerProcess.jsp

```
<%@ page language="java" contentType="text/html; charset=UTF-8" pageEncoding="UTF-8"%>
<%

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

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

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



```
if (username == null || username.trim().isEmpty() ||
    password == null || password.trim().isEmpty() ||
    email == null || email.trim().isEmpty()) {
    response.sendRedirect("register.jsp?error=Please fill all fields");
    return;
}

// Store user session
session.setAttribute("username", username);
response.sendRedirect("homePage.jsp");
%>

homePage.jsp
<!-- home.jsp -->
<%@ page language="java" contentType="text/html; charset=UTF-8" pageEncoding="UTF-8"%>
<%
    String username = (String) session.getAttribute("username");
    if (username == null) {
        response.sendRedirect("register.jsp");
        return;
    }
%>
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Home Page</title>
    <style>
        body {
            font-family: 'Segoe UI', Tahoma, Geneva, Verdana, sans-serif;
```

Academic Year: 2024-25
Course Code: MC506

Semester: II

Class: FYMCA
Course Name: Advanced Java Programming

Atharva Vasant Angre

Practical 2

2024510001

```
        line-height: 1.6;

        color: #333;

        background-color: #f5f5f5;

        padding: 2rem;

        text-align: center;

    }

    .container {

        max-width: 600px;

        margin: 0 auto;

        background: #fff;

        padding: 2rem;

        border-radius: 8px;

        box-shadow: 0 2px 4px rgba(0, 0, 0, 0.1);

    }

    h2 {

        color: #2c5282;

    }

    .btn {

        display: inline-block;

        background-color: #2c5282;

        color: white;

        padding: 0.75rem 1.5rem;

        text-decoration: none;

        border-radius: 4px;

        margin-top: 1rem;

    }

    .btn:hover {

        background-color: #2b6cb0;

    }

</style>
```

```
</head>
<body>
    <div class="container">
        <h2>Welcome, <%= username %>!</h2>
        <p>You have successfully registered.</p>
        <a href="jobApplication.jsp" class="btn">Apply for Job</a>
    </div>
</body>
</html>
```

jobApplication.jsp

```
<%@ page language="java" contentType="text/html; charset=UTF-8" pageEncoding="UTF-8"%>
<%
    // Check if user is logged in
    String username = (String) session.getAttribute("username");
    if (username == null) {
        response.sendRedirect("register.jsp");
        return;
    }

    String name = request.getParameter("name");
    String email = request.getParameter("email");
    String phone = request.getParameter("phone");
    String job = request.getParameter("job");
    String nameError = "";
    String emailError = "";
    String phoneError = "";
    String jobError = "";
    boolean hasErrors = false;

    if (request.getMethod().equals("POST")) {
```

```
if (name == null || name.trim().isEmpty()) {  
    hasErrors = true;  
    nameError = "Name is required.";  
}  
  
if (email == null || !email.matches("^[A-Za-z0-9._%+-]+@[A-Za-z0-9.-]+\\.[A-Za-z]{2,}$")) {  
    hasErrors = true;  
    emailError = "Valid email is required.";  
}  
  
if (phone == null || !phone.matches("^\\d{10}$")) {  
    hasErrors = true;  
    phoneError = "Valid 10-digit phone number is required.";  
}  
  
if (job == null || job.trim().isEmpty()) {  
    hasErrors = true;  
    jobError = "Job role is required.";  
}  
}
```

```
if (!hasErrors && request.getMethod().equals("POST")) {  
%>  
<!DOCTYPE html>  
<html lang="en">  
<head>  
    <meta charset="UTF-8">  
    <meta name="viewport" content="width=device-width, initial-scale=1.0">  
    <title>Application Successful</title>  
    <style>  
        body {  
            font-family: 'Segoe UI', Tahoma, Geneva, Verdana, sans-serif;  
            line-height: 1.6;
```

Academic Year: 2024-25
Course Code: MC506

Semester: II

Class: FYMCA
Course Name: Advanced Java Programming

Atharva Vasant Angre

Practical 2

2024510001

```
        color: #333;

        background-color: #f5f5f5;

        padding: 2rem;

        text-align: center;

    }

    .container {

        max-width: 600px;

        margin: 0 auto;

        background: #fff;

        padding: 2rem;

        border-radius: 8px;

        box-shadow: 0 2px 4px rgba(0, 0, 0, 0.1);

    }

    h2 {

        color: #2c5282;

    }

</style>

</head>

<body>

    <div class="container">

        <h2>Application Submitted Successfully!</h2>

        <p>Thank you, <%= name %>. We will contact you at <%= email %> soon.</p>

    </div>

</body>

</html>

<%

    return;

}

%>

<!DOCTYPE html>
```

Academic Year: 2024-25
Course Code: MC506

Semester: II

Class: FYMCA
Course Name: Advanced Java Programming

Atharva Vasant Angre

Practical 2

2024510001

```
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Job Application Form</title>
  <style>
    body {
      font-family: 'Segoe UI', Tahoma, Geneva, Verdana, sans-serif;
      line-height: 1.6;
      color: #333;
      background-color: #f5f5f5;
      padding: 2rem;
    }
    .form-container {
      max-width: 600px;
      margin: 0 auto;
      background: #fff;
      padding: 2rem;
      border-radius: 8px;
      box-shadow: 0 2px 4px rgba(0, 0, 0, 0.1);
    }
    h2 {
      color: #2c5282;
      text-align: center;
      margin-bottom: 1.5rem;
    }
    label {
      font-weight: 600;
      display: block;
      margin-top: 0.5rem;
```

Academic Year: 2024-25
Course Code: MC506

Semester: II

Class: FYMCA
Course Name: Advanced Java Programming

Atharva Vasant Angre

Practical 2

2024510001

```
    }
    input {
        width: 100%;
        padding: 0.75rem;
        border: 1px solid #e2e8f0;
        border-radius: 4px;
        margin-bottom: 0.5rem;
    }
    .error {
        color: #e53e3e;
        font-size: 0.875rem;
    }
    button {
        background-color: #2c5282;
        color: white;
        padding: 0.75rem;
        border: none;
        border-radius: 4px;
        cursor: pointer;
        margin-top: 1rem;
        width: 100%;
    }
    button:hover {
        background-color: #2b6cb0;
    }
</style>
</head>
<body>
    <div class="form-container">
        <h2>Job Application</h2>
```

```
<form action="jobApplication.jsp" method="POST">

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

    <input type="text" id="name" name="name" value="<%= name != null ? name : "" %>"
placeholder="Enter your full name">

    <div class="error"><%= nameError %></div>

    <label for="email">Email:</label>

    <input type="email" id="email" name="email" value="<%= email != null ? email : "" %>"
placeholder="Enter your email">

    <div class="error"><%= emailError %></div>

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

    <input type="text" id="phone" name="phone" value="<%= phone != null ? phone : "" %>"
placeholder="Enter your phone number">

    <div class="error"><%= phoneError %></div>

    <label for="job">Job Role:</label>

    <input type="text" id="job" name="job" value="<%= job != null ? job : "" %>"
placeholder="Enter the job role">

    <div class="error"><%= jobError %></div>

    <button type="submit">Apply</button>

</form>

</div>

</body>

</html>
```

Output:

The screenshot shows a web browser window with the title 'User Registration'. The address bar shows 'localhost:8080/jobPost/register.jsp'. The form is titled 'User Registration' and contains the following fields:

- Username:** Enter username
- Email:** Enter your email
- Password:** Enter password
- Confirm Password:** Confirm password

A blue 'Register' button is located at the bottom of the form.

The screenshot shows the same web browser window, but now with validation error messages displayed below each input field:

- Username:** Username is required.
- Email:** Valid email is required.
- Password:** Password must be at least 6 characters long.

The 'Confirm Password' field and the 'Register' button are still visible.

Academic Year: 2024-25
Course Code: MC506

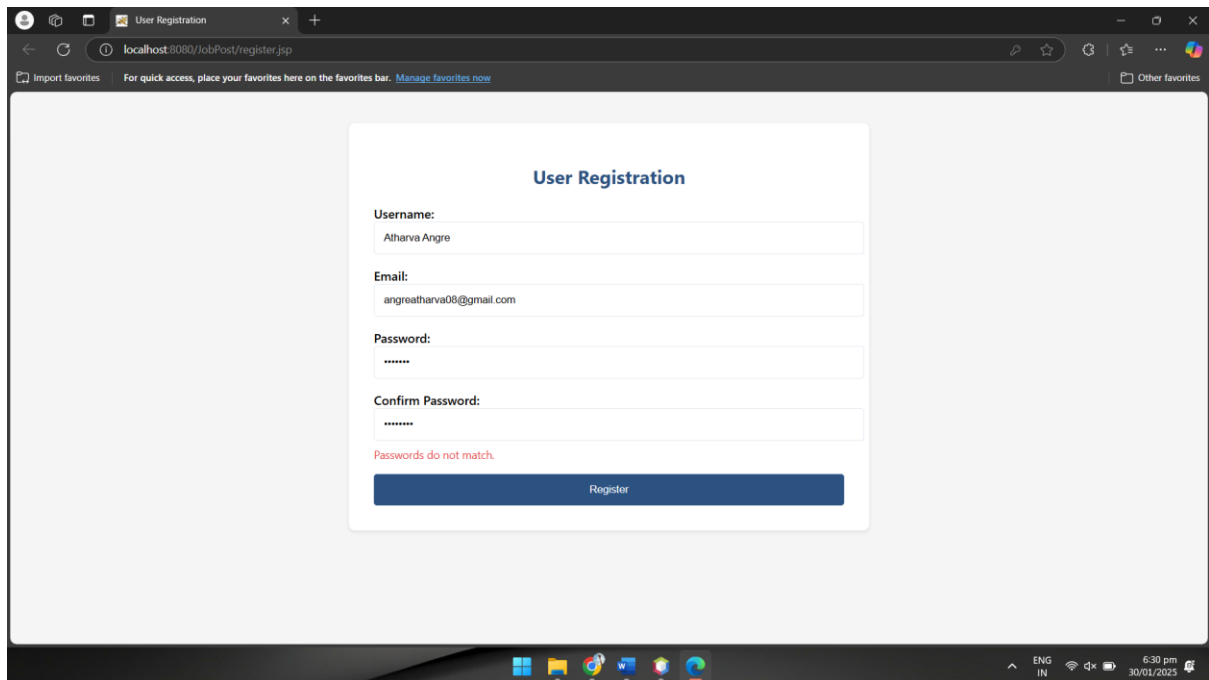
Semester: II

Class: FYMCA
Course Name: Advanced Java Programming

Atharva Vasant Angre

Practical 2

2024510001



User Registration

Username:
Atharva Angre

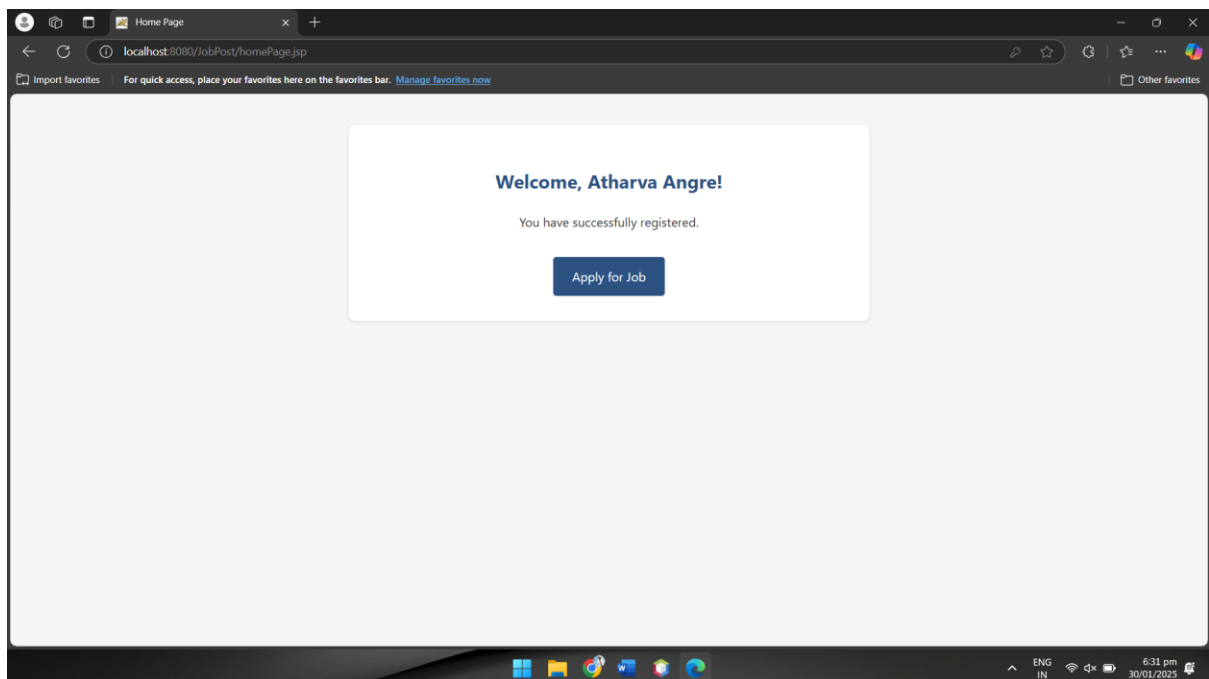
Email:
angreatharva08@gmail.com

Password:

Confirm Password:

Passwords do not match.

Register



Welcome, Atharva Angre!

You have successfully registered.

Apply for Job

Academic Year: 2024-25
Course Code: MC506

Semester: II

Class: FYMCA
Course Name: Advanced Java Programming

Atharva Vasant Angre

Practical 2

2024510001

Job Application Form

localhost:8080/jobPost/jobApplication.jsp

Job Application

Full Name:
Enter your full name

Email:
Enter your email

Phone:
Enter your phone number

Job Role:
Enter the job role

Apply

Job Application Form

localhost:8080/jobPost/jobApplication.jsp

Job Application

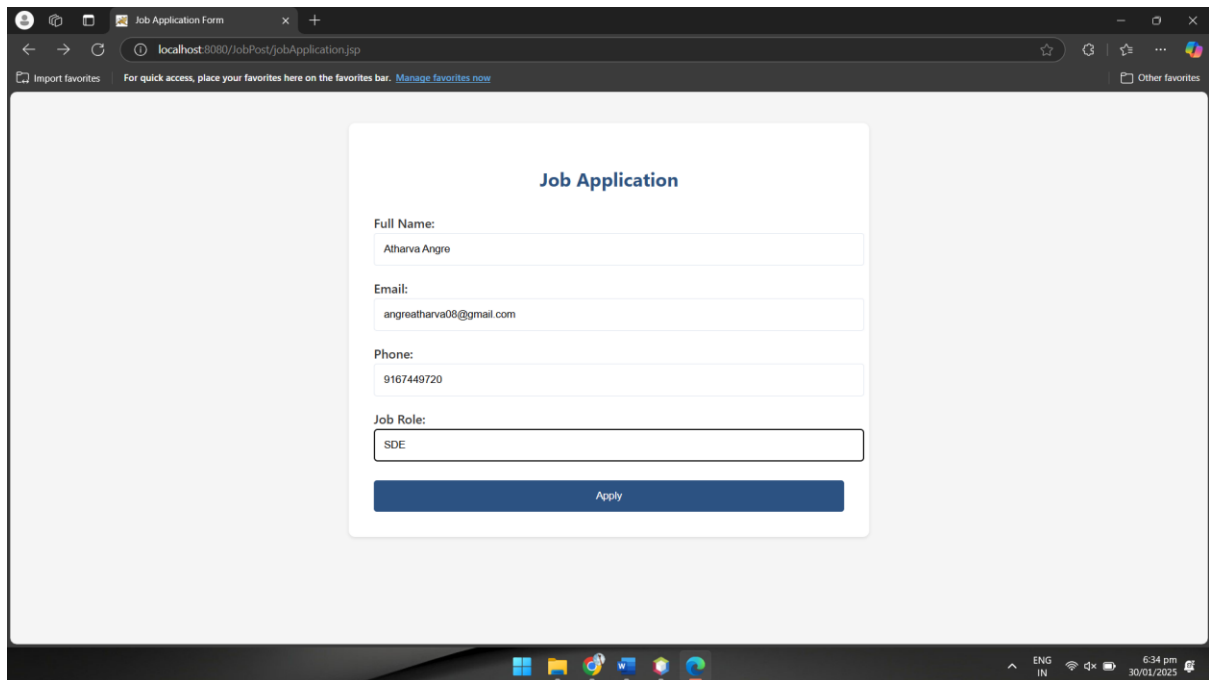
Full Name:
Enter your full name
Name is required.

Email:
Enter your email
Valid email is required.

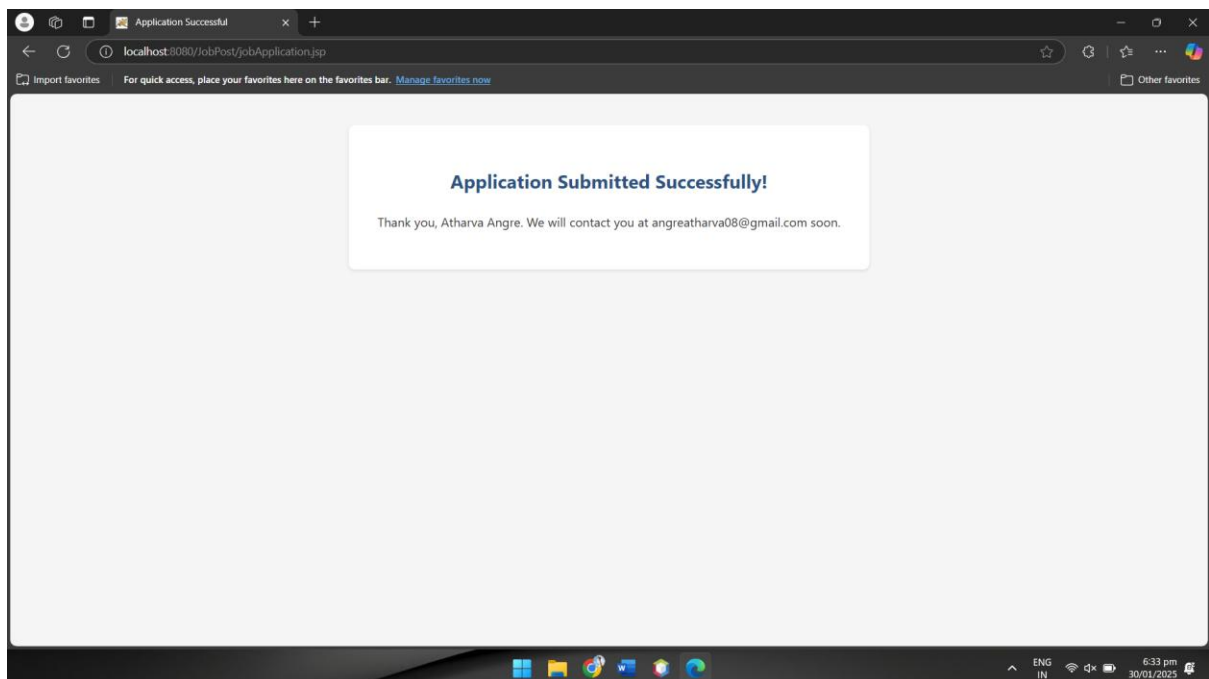
Phone:
Enter your phone number
Valid 10-digit phone number is required.

Job Role:
Enter the job role
Job role is required.

Apply



The screenshot shows a web browser window with the address bar displaying 'localhost:8080/jobPost/jobApplication.jsp'. The page title is 'Job Application Form'. The main content area features a white box with the heading 'Job Application'. Below the heading are four input fields: 'Full Name:' with the value 'Atharva Angre', 'Email:' with the value 'angreatharva08@gmail.com', 'Phone:' with the value '9167449720', and 'Job Role:' with the value 'SDE'. A blue 'Apply' button is positioned at the bottom of the form.



The screenshot shows the same web browser window after the form submission. The address bar remains 'localhost:8080/jobPost/jobApplication.jsp'. The page title is 'Application Successful'. The main content area displays a white box with the heading 'Application Submitted Successfully!' and the text 'Thank you, Atharva Angre. We will contact you at angreatharva08@gmail.com soon.'

Observation:

The experiment shows how to check form details using JSP before they are submitted, ensuring the data is correct. It also makes the job application page available only to registered users, adding security. Clear error messages help users fix mistakes easily. This makes the process smooth and user-friendly. Overall, it provides a simple way to create secure web pages with JSP.