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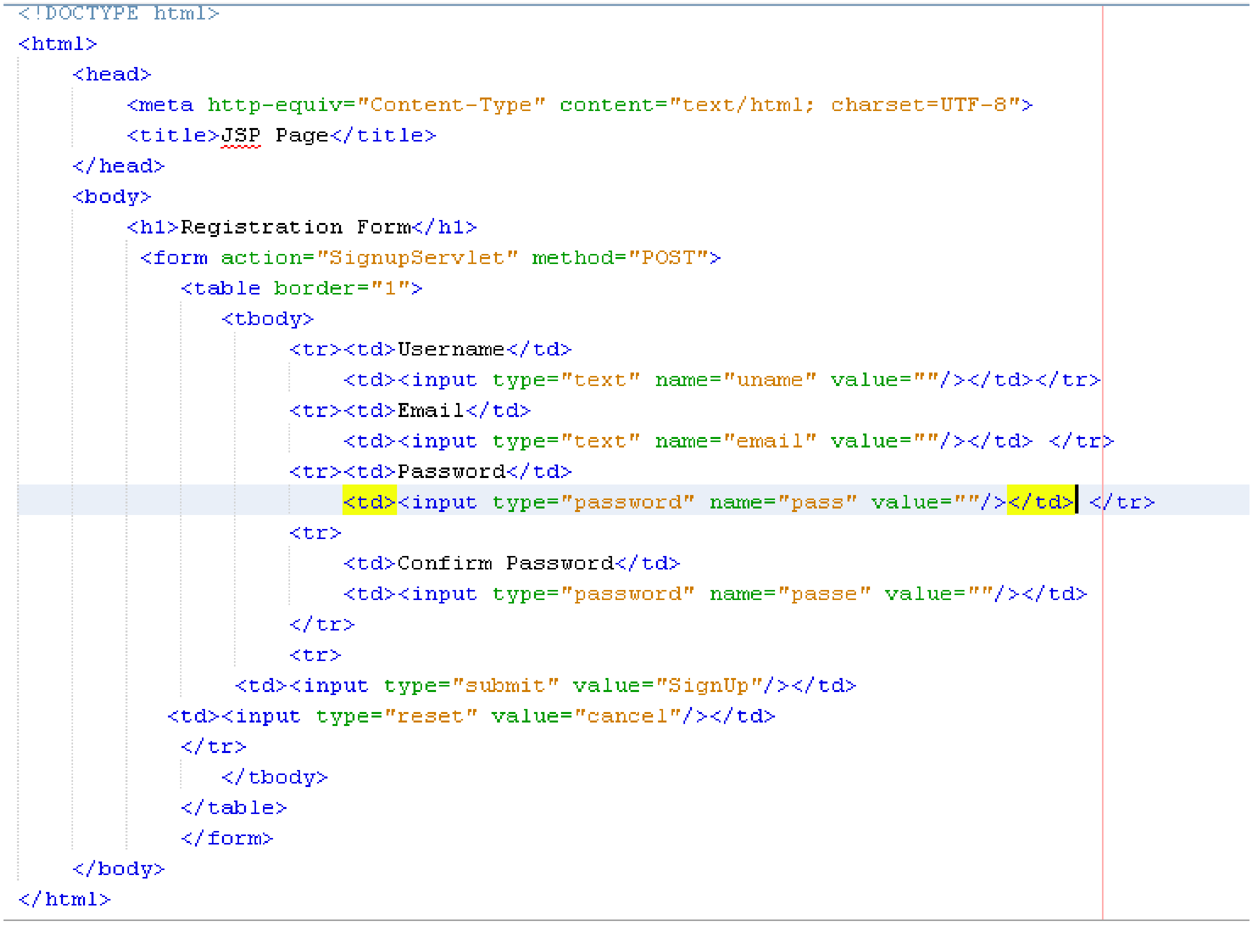
Tutorial 03

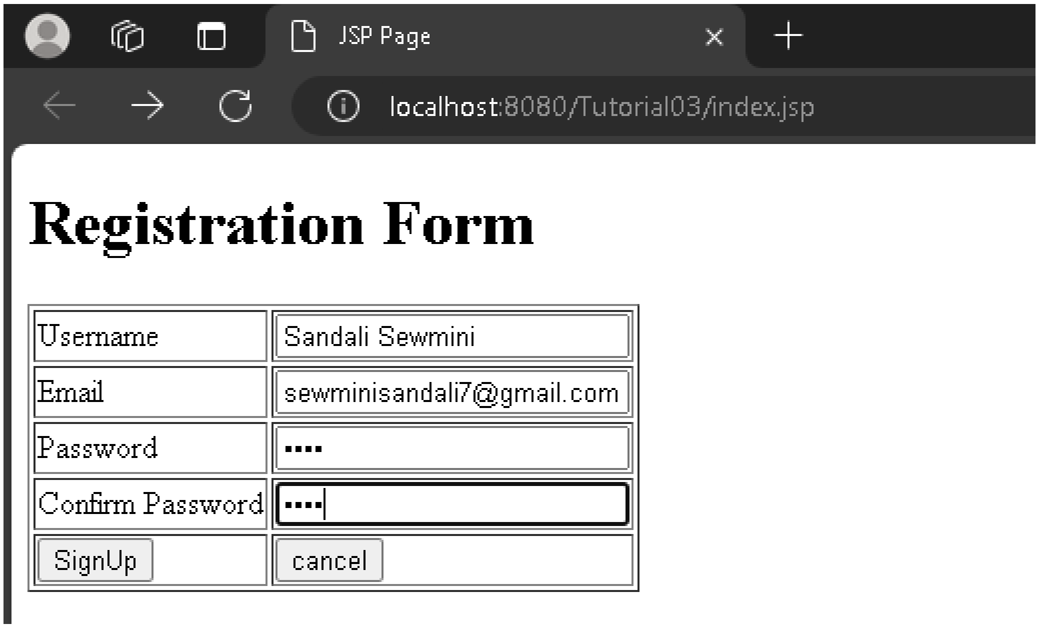
Answer all questions.

1) **Create a new JAVA web project in NetBeans. Design a minimal interface for a registration form in the 'index.JSP'. The Registration form should include these fields.**
    a. **Username**
    b. **Email**
    c. **Password**
    d. **Confirm Password**

Index.jsp



```
<!DOCTYPE html>
<html>
    <head>
        <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
        <title>JSP Page</title>
    </head>
    <body>
        <h1>Registration Form</h1>
         <form action="SignupServlet" method="POST">
            <table border="1">
               <tbody>
                    <tr><td>Username</td>
                        <td><input type="text" name="uname" value=""/></td></tr>
                    <tr><td>Email</td>
                        <td><input type="text" name="email" value=""/></td> </tr>
                    <tr><td>Password</td>
                        <td><input type="password" name="pass" value=""/></td> </tr>
                    <tr>
                        <td>Confirm Password</td>
                        <td><input type="password" name="passe" value=""/></td>
                    </tr>
                    <tr>
                <td><input type="submit" value="SignUp"/></td>
           <td><input type="reset" value="cancel"/></td>
            </tr>
               </tbody>
            </table>
            </form>
    </body>
</html>
```

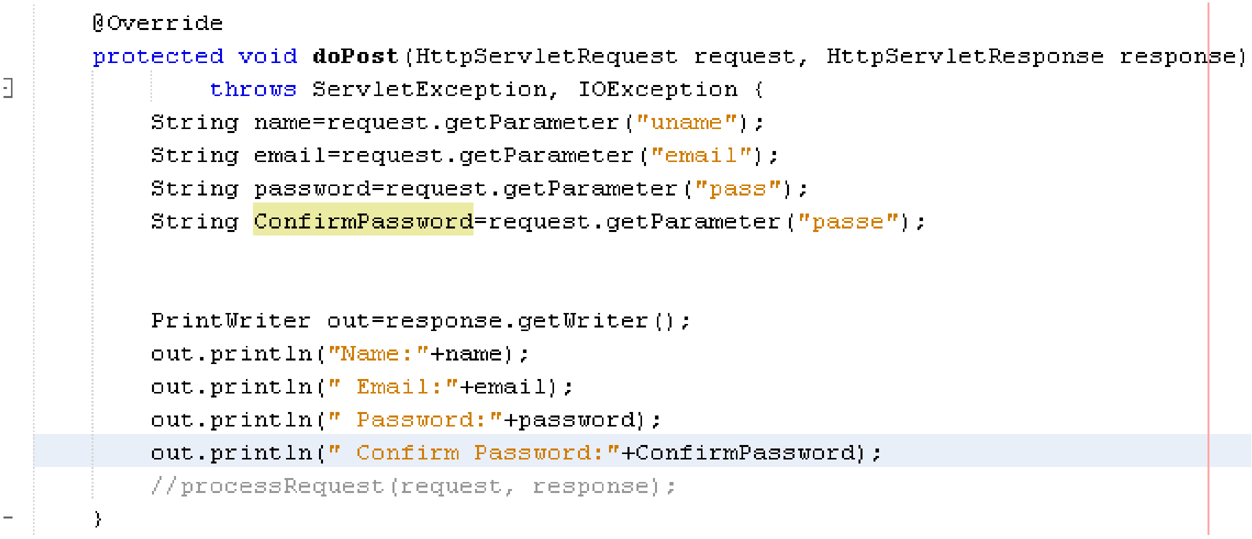


Registration Form

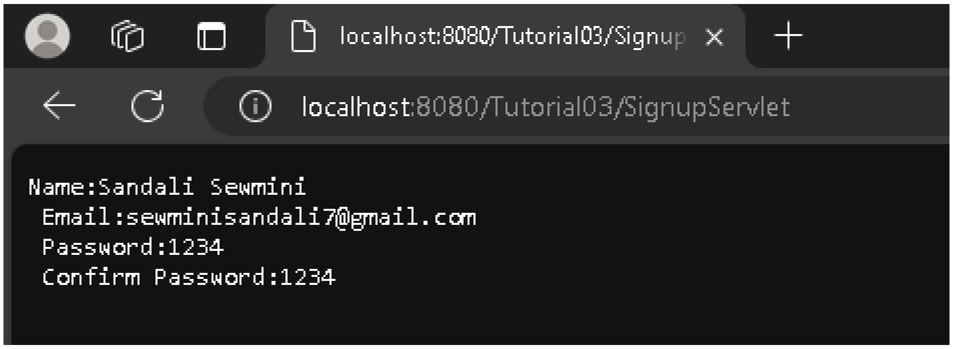
Username	Sandali Sewmini
Email	sewminisandali7@gmail.com
Password	••••
Confirm Password	••••
SignUp	cancel

02)Create a servlet named SignupServlet that extends HttpServlet. Implement the doPost method to handle the requests.

<ins>**SignupServlet.java**</ins>

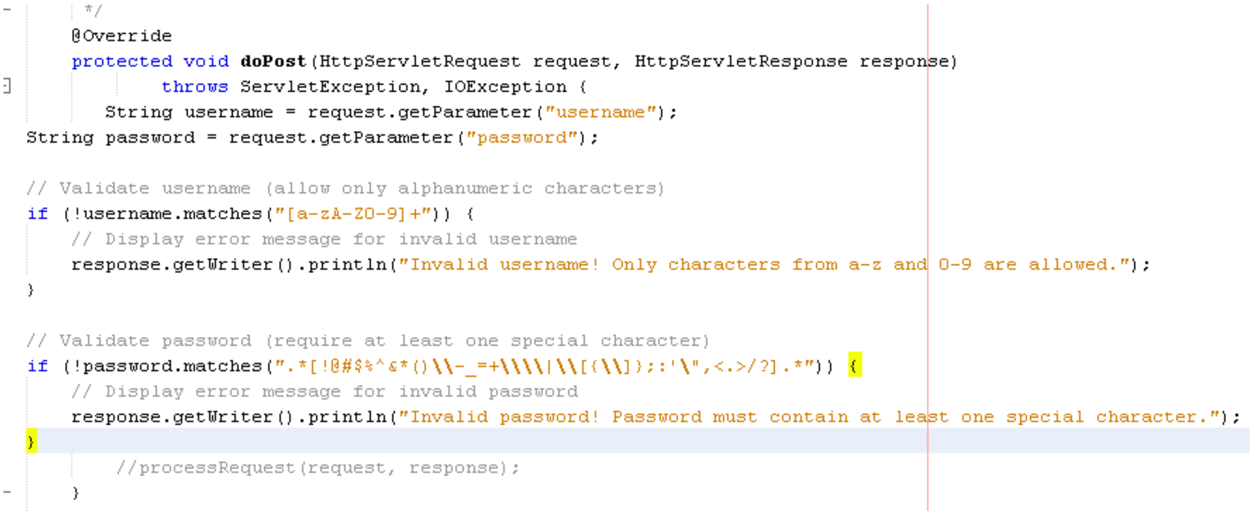


```
    @Override
    protected void doPost(HttpServletRequest request, HttpServletResponse response)
            throws ServletException, IOException {
        String name=request.getParameter("uname");
        String email=request.getParameter("email");
        String password=request.getParameter("pass");
        String ConfirmPassword=request.getParameter("passe");


        PrintWriter out=response.getWriter();
        out.println("Name:"+name);
        out.println(" Email:"+email);
        out.println(" Password:"+password);
        out.println(" Confirm Password:"+ConfirmPassword);
        //processRequest(request, response);
    }
```


localhost:8080/Tutorial03/Signup
localhost:8080/Tutorial03/SignupServlet

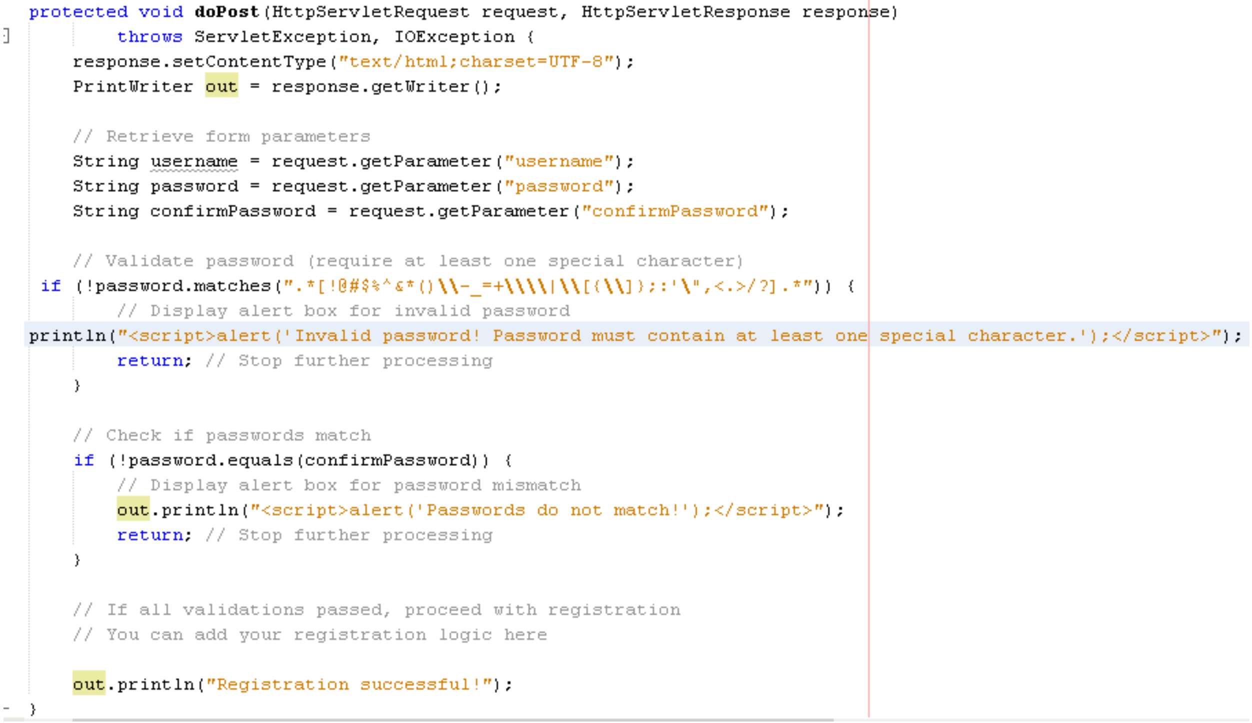
```
Name:Sandali Sewmini
 Email:sewminisandali7@gmail.com
 Password:1234
 Confirm Password:1234
```

3)Validate the Username where the user can only enter a name with characters from a-z and 0-9. Display an error message if the requirements are not fulfilled.



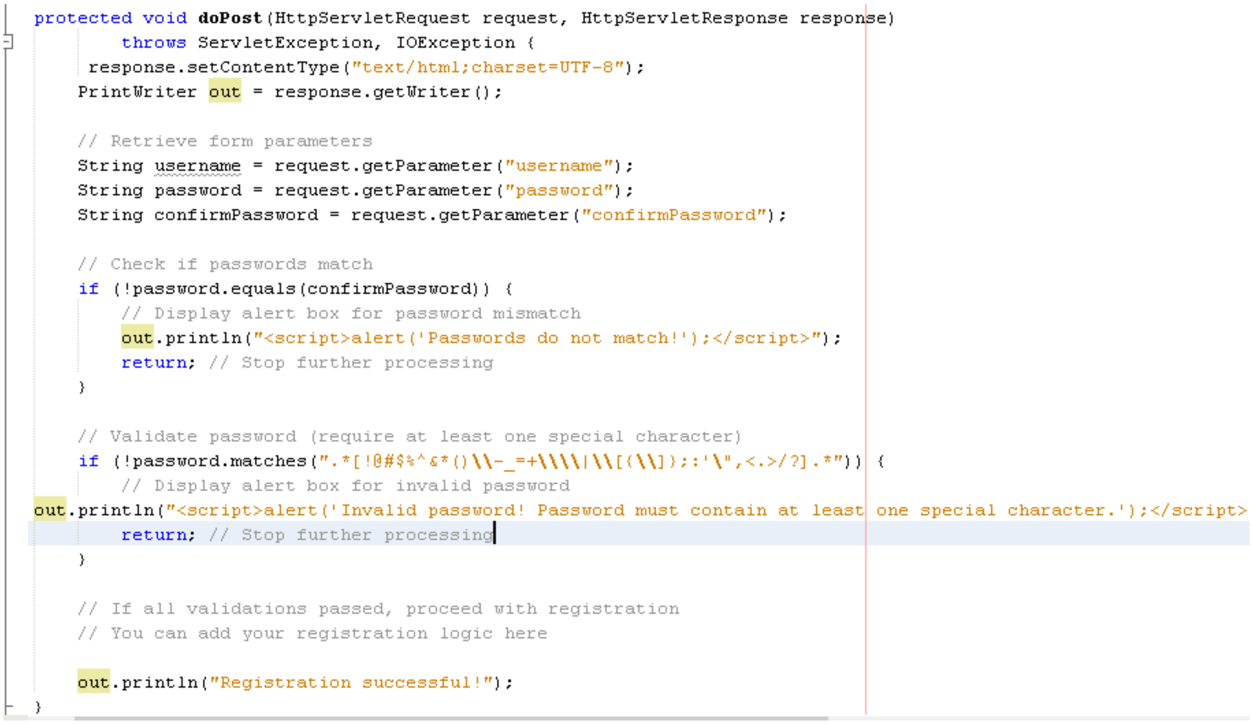
```
        */
    @Override
    protected void doPost(HttpServletRequest request, HttpServletResponse response)
            throws ServletException, IOException {
       String username = request.getParameter("username");
String password = request.getParameter("password");

// Validate username (allow only alphanumeric characters)
if (!username.matches("[a-zA-Z0-9]+")) {
    // Display error message for invalid username
    response.getWriter().println("Invalid username! Only characters from a-z and 0-9 are allowed.");
}

// Validate password (require at least one special character)
if (!password.matches(".*[!@#$%^&*()\\-_=+\\\\|\\[{\\]};:'\",<.>/?].*")) {
    // Display error message for invalid password
    response.getWriter().println("Invalid password! Password must contain at least one special character.");
}
        //processRequest(request, response);
    }
```

4)Validate the password where the user needs to have at least one special character. If the password does not meet the requirements display a message through a popout box.



```
protected void doPost(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException {
    response.setContentType("text/html;charset=UTF-8");
    PrintWriter out = response.getWriter();

    // Retrieve form parameters
    String username = request.getParameter("username");
    String password = request.getParameter("password");
    String confirmPassword = request.getParameter("confirmPassword");

    // Validate password (require at least one special character)
 if (!password.matches(".*[!@#$%^&*()\\-_=+\\\\|\\[{\\]};:'\",<.>/?].*")) {
        // Display alert box for invalid password
println("<script>alert('Invalid password! Password must contain at least one special character.');</script>");
        return; // Stop further processing
    }

    // Check if passwords match
    if (!password.equals(confirmPassword)) {
        // Display alert box for password mismatch
        out.println("<script>alert('Passwords do not match!');</script>");
        return; // Stop further processing
    }

    // If all validations passed, proceed with registration
    // You can add your registration logic here

    out.println("Registration successful!");
}
```

5)Check whether the set password and the password fields have equal values to validate the password. If the passwords do not match set out an alert box with the error message.



```
protected void doPost(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException {
     response.setContentType("text/html;charset=UTF-8");
    PrintWriter out = response.getWriter();

    // Retrieve form parameters
    String username = request.getParameter("username");
    String password = request.getParameter("password");
    String confirmPassword = request.getParameter("confirmPassword");

    // Check if passwords match
    if (!password.equals(confirmPassword)) {
        // Display alert box for password mismatch
        out.println("<script>alert('Passwords do not match!');</script>");
        return; // Stop further processing
    }

    // Validate password (require at least one special character)
    if (!password.matches(".*[!@#$%^&*()\\-_=+\\\\|\\[{\\]};:'\",<.>/?].*")) {
        // Display alert box for invalid password
out.println("<script>alert('Invalid password! Password must contain at least one special character.');</script>
        return; // Stop further processing
    }

    // If all validations passed, proceed with registration
    // You can add your registration logic here

    out.println("Registration successful!");
}
```