Case Study: Online Feedback Collection System

1. Frontend: feedback.html or feedback.jsp

```html
<!DOCTYPE html>
<html>
<head>
   <title>Course Feedback Form</title>
</head>
<body>
   <h2>Student Feedback Form</h2>
   <form method="post" action="FeedbackServlet">
      Name: <input type="text" name="name" required><br><br>
      Email: <input type="email" name="email" required><br><br>
      Course Attended: <input type="text" name="course" required><br><br>
      Feedback/Suggestions:<br>
      <textarea name="feedback" rows="5" cols="40" required></textarea><br><br>
      <input type="submit" value="Submit Feedback">
   </form>
</body>
</html>
```

2. Backend Servlet: FeedbackServlet.java

```java
package com.feedback;
```

```java
import jakarta.servlet.*;

import jakarta.servlet.annotation.WebServlet;

import jakarta.servlet.http.*;

import java.io.*;


@WebServlet("/FeedbackServlet")

public class FeedbackServlet extends HttpServlet {

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

        response.setContentType("text/html");

        PrintWriter out = response.getWriter();


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

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

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

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


        // Check for existing feedback via cookie

        boolean alreadySubmitted = false;

        Cookie[] cookies = request.getCookies();

        if (cookies != null) {

            for (Cookie c : cookies) {

                if (c.getName().equals("feedbackSubmitted") && c.getValue().equals(email)) {

                    alreadySubmitted = true;

                    break;

                }
```

```java
        }
    }


    if (alreadySubmitted) {
        out.println("<h2>You have already submitted feedback.</h2>");
    } else {
        // Save data to database or file (optional – placeholder here)
        // e.g., writeToDatabase(name, email, course, feedback);


        // Set cookie to prevent resubmission
        Cookie feedbackCookie = new Cookie("feedbackSubmitted", email);
        feedbackCookie.setMaxAge(60 * 60 * 24); // 1 day
        response.addCookie(feedbackCookie);


        // Confirmation response
        out.println("<h2>Thank you for your feedback!</h2>");
        out.println("<p><strong>Name:</strong> " + name + "</p>");
        out.println("<p><strong>Email:</strong> " + email + "</p>");
        out.println("<p><strong>Course:</strong> " + course + "</p>");
        out.println("<p><strong>Feedback:</strong> " + feedback + "</p>");
    }

    out.close();
    }
}
```

3. web.xml Configuration (if not using @WebServlet)

```xml
<web-app xmlns="https://jakarta.ee/xml/ns/jakartaee" version="5.0">

    <servlet>

        <servlet-name>FeedbackServlet</servlet-name>

        <servlet-class>com.feedback.FeedbackServlet</servlet-class>

    </servlet>

    <servlet-mapping>

        <servlet-name>FeedbackServlet</servlet-name>

        <url-pattern>/FeedbackServlet</url-pattern>

    </servlet-mapping>

    <welcome-file-list>

        <welcome-file>feedback.html</welcome-file>

    </welcome-file-list>

</web-app>
```