

Exercises: Including Files and Applets

Problem #1 is quite easy, and is the most important one of the group: it is how you most commonly use jsp:include. Problems 2 and 3 look at more advanced but much less commonly used features of jsp:include.

1. Make an HTML “signature” block with your name and email address. Include it in two JSP pages.
2. The value of the page attribute of jsp:include is allowed to be a JSP expression. That is, you are permitted to do this:

```
<jsp:include page="<% someVariable %>" />
```

Use this idea to make a JSP page that includes a “good news” message or a “bad news” message at random.

3. Suppose that you have two different JSP pages that do two different things. However, for both pages you want to let the user supply a bgColor attribute to set the background color of the page. Implement this, but use an include mechanism to avoid repeating code. For example:
White background: http://host/path/page1.jsp
White background: http://host/path/page2.jsp
Red background: http://host/path/page1.jsp?bgColor=RED
Yellow background: http://host/path/page2.jsp?bgColor=YELLOW

For testing, I do not care if you write an HTML form to collect the bgColor parameter or if you simply attach it onto the end of the URL “by hand.”

4. Make two separate JSP pages that have bulleted lists containing random integers in a certain range. Avoid repeating code unnecessarily by including a page that defines a randomInt method.
5. If you are familiar with applets, make a trivial one that does nothing but set the background color to blue and print a string derived from the MESSAGE parameter embedded in the HTML by means of a PARAM element. Convert it to a version that uses the Java Plug-In. Note that, if this runs at all, it proves that you are correctly accessing the Plug-In. You don’t need to use Swing or Java2D to verify that you are using the Plug-In, since the tag generated by jsp:plugin is incompatible with the standard virtual machine used by Firefox and IE. Try both Firefox and Internet Explorer to see which (if any) of them has the Plug-In installed. Reminder: applets run on the client, not on the server. So your applet’s .class files can’t go in the server’s WEB-INF/classes directory. These .class files work the same way as for regular applets: they go in the same directory as the JSP/HTML file that uses the applet tag. This is nothing specific to JSP, but is just the normal way applets work.