Exercises: Servlet Basics

Make a new Eclipse project called exercises-basics (or some such). Note that my solutions are in the project called basics-exercises. For this and all other exercises in the course, we will review the solutions before starting the next lecture. If you wish, however, you can always peek at my solutions ahead of time.

1. Make a package called servletBasics (or some other name of your choosing) and copy TestServlet from your previous project. Note that if you copy from the testServlet package (which is what I happened to name the package in the “test-app” project) and paste into some other package, Eclipse will automatically fix the package statement for you. Modify the HTML output so that it says “Hello Your-Name”. Deploy the application and run the new servlet. (http://localhost/your-project-name/your-address-from-the-WebServlet-annotation). I recommend that for now, you not try to use ServletUtilities or any other helper class, but instead make your servlet self contained. Once you have experience with the basics, you will start using helper classes.

2. Create a servlet that makes a bulleted list of four random numbers. Don’t type in the servlet code by hand; start by copying and renaming an existing servlet like TestServlet, then edit it. However, when you copy the servlet, be sure to change its address (by using @WebServlet). If you have two servlets in the same project that have the same address, the server will completely ignore one of the servlets.
   • Reminder 1: you use Math.random() to output a random number in Java.
   • Reminder 2: you make a bulleted list in HTML as follows
   
   `<ul><li>List item 1</li><li>List item 2</li>...<li>List item 2</li>\</ul>`
   (In HTML 4, you can use upper or lower case, and you can omit it </li> tags. In xhtml and HTML 5, you should use lower case and include the </li> tags.)

3. Create a servlet that uses a loop to output an HTML table with 25 rows and 10 columns. For instance, each row could contain “RowX, Col1”, “RowX Col2”, and “RowX Col3”, where X is the current row number. If you don’t know the HTML syntax for tables, please ask me.