Exercises: HTTP Status Codes

Make a new Eclipse project called exercises-status-codes (or some such).

1. Write a servlet that sends about half the users to http://www.google.com and about half to http://www.bing.com. Choose at random (compare the output of Math.random() to 0.5). As a starting point, copy/paste a servlet from one of your previous projects, but remember that when you do response.sendRedirect, you should *not* do response.setContentType or out.println.

Question to ponder: Suppose you entered the address of the servlet and ended up at google.com. Now you hit the Reload button on your browser. What is the probability that you now go to bing.com?

2. Write a servlet that returns a "page not found" error page (404) unless the user supplies a favoriteLanguage request (form) parameter with a value of "Java."

3. Write a servlet that sends the first 9 requests to washingtonpost.com (an organization that uses servlets and JSP extensively, by the way), the next request to nytimes.com, and then repeats. That is, every tenth request should get sent to nytimes.com and the rest should get sent to washingtonpost.com. Don't just use probabilities (i.e., don't compare Math.random to 0.9); actually count the overall requests. So, for example, if the server received between 1000 and 1009 overall requests since last being booted, exactly 100 of them should have sent users to nytimes.com, and the rest should have sent users to washingtonpost.com.

Hint: use an instance variable (aka field, data member).