CS5334.0251/0252, Spring, 2010
Advanced Internet Information Processing
Assignment 1

Issued: 02/17/2010
Due: 03/03/2010

1. (20 pts) This problem is pertaining to the HTTP protocol. If an HTTP server is running on a host, say www.cs.txstate.edu, at port 80, then one can connect to the server by using the syntax like:

telnet www.cs.txstate.edu 80

Please try this to one HTTP server and observe/record/perform the following:

(1) The format of interactions (any particular syntax required?)

(2) Try to send POST method requests and record the responses.

(3) Try to send GET method requests and record the responses.

Summarize your interactions.

2. ($5+5+10=20$ pts) This problem is pertaining to the HTML language. You can create your own web page by placing an HTML page in the "public_html" directory within your home directory of your Linux account.

(1) Write an HTML file that contains all needed basic component of an HTML page and test it;

(2) Change the previous HTML file so that it contains some syntax errors and load the changed file to see if there is any displayed difference.

(3) Write a HTML file that uses both tables and frames. You may also use other HTML elements if necessary. Briefly describe the functionalities and purposes of the file you write.

3. (35 pts) In a normal English document, space and letters "." (period), "," (comma), and "!" (exclamation) are delimiters.

Write a Perl script that counts the number of occurrences of each word that begins with an up-case letter in a given English document. It is assumed that your script should be case-sensitive. The output is like this:

A:	20
An:	23
Do:	12
THIS:	14
This:	10

4. (25 pts) Assume that the input is of the format:

$$\text{name}_1 = \text{value}_1 \& \text{name}_2 = \text{value}_2 \& \cdots \text{name}_n = \text{value}_n$$

Some of the value_i could be empty, i.e. it is possible to have

$$\text{name}_i = \& \text{name}_{i+1} = \text{value}_{i+1}$$

Write a Perl script that extracts all name_i and value_i pairs, and print them out like:

$name_1$ is $value_1$
$name_2$ is $value_2$
...
$name_n$ is $value_n$

There is no hard copy of assignment solution required and accepted. Place a copy of your solution to:

ftp://glaciers.cs.txstate.edu/cs5334/sp-10/hw1/Your-Last-Name

The login name is cs5334, the password is the same as the one for class web page.

For security reasons, your upload operations can only be done from on-campus computers. The ftp application should be an normal ftp program, not a sftp program.