Lab 6

Due: April 5th by 11:59pm

Write a program which specifies at run time:

* a port number on which to listen for incoming connections.
* the name of a log file

The program listens on the TCP port specified. When a connection is made, the server sends back an HTTP 200 response and HTML text, which when shown in a browser, will display:

* "Your IP address is:" followed by the IP address of the machine that has connected. The IP address of the client may be obtained by using the [getInetAddress](http://download.oracle.com/javase/7/docs/api/java/net/Socket.html#getInetAddress()) method in the [Socket](http://download.oracle.com/javase/7/docs/api/java/net/Socket.html) class.
* It should then print the current date and time. In order to obtain the current date and time, you can use the java [Date class](http://docs.oracle.com/javase/7/docs/api/java/util/Date.html).

The program then writes to the log file: the time, IP address of the client, and all of the HTTP headers sent by the client.

For example, when I try the program on my own computer, I see in the browser :

Your IP address is 129.32.95.12

The current time is: Mon Oct 17 15:17:22 EDT 2016

and then to the file, the program writes something like:

Mon Oct 17 15:17:22 EDT 2016

IP: 129.32.95.12

GET / HTTP/1.1

Host: localhost:9999

Connection: keep-alive

User-Agent: Mozilla/5.0 (X11; Linux x86\_64) AppleWebKit/535.1 (KHTML, like Gecko) Chrome/14.0.835.186 Safari/535.1

Accept: text/html,application/xhtml+xml,application/xml;q=0.9,\*/\*;q=0.8

Accept-Encoding: gzip,deflate,sdch

Accept-Language: en-US,en;q=0.8

Accept-Charset: ISO-8859-1,utf-8;q=0.7,\*;q=0.3

You should be able to test your program with a web browser to see that it's doing what it should.

Remember that your program is probably not going to be able to listen on port 80. To tell a web browser to connect to a web server on an alternate port, append a ":" and the port number to the URL. For example, if you're running your server on cis-linux2.temple.edu port 9999, in the browser's location window, you'd type: http://cis-linux2.temple.edu:9999 and you could always try testing the server on your own computer, with the client using the address: http://127.0.0.1:9999