Programming assignment. Part B (50 marks)

"wget" is a Linux utility that can use FTP or HTTP or HTTPS to retrieve a file from a web server or FTP server.

This assignment is to build a simple version of a similar program called "webget" that can retrieve files from a HTTP server.

You can program webget in a language of your choice using any socket libraries that you wish.

You can also use libraries to assist with parsing command lines.

You cannot use "http" libraries, or "urllib" or make calls to an external "wget" program, your program should operate at socket level and do the packet decoding.

The webget utility should work as a command line program with command line parameters as follows (or similar command format depending on your choice of language, e.g. you may need to call the python interpreter, the program may need to be webget.py, etc.):

```
webget  PROTOCOL://HOST/FILENAME
```

for example:

```
webget http://www-net.cs.umass.edu/wireshark-labs/Wireshark_Intro_v7.0.pdf
```

will use the HTTP protocol to retrieve the file "`Wireshark_Intro_v7.0.pdf`" in the subdirectory "`wireshark-labs`" on the server `www-net.cs.umass.edu` on the usual HTTP welcome port (80) and store it in the file "`Wireshark_Intro_v7.0.pdf`" in the current directory.

Your program should output appropriate error messages to the console for unsuccessful responses from the server, such as incorrect directory, incorrect host, missing file. Your program does not need to interpret or render or display the retrieved file.

You do not need to find the file if the html response is redirect, etc.

Hand In –electronically submit all your source code on Blackboard.

You will demonstrate your program during one of the lab sessions in the week starting 8 May, with a schedule of demonstrations produced by 5 May.

Testing:

Marks 30/50 – works for simple cases, e.g. can download

http://www.rfc-base.org/txt/rfc-768.txt

Additional Marks:

Useful response including error message if hostname is incorrect 5/5

Useful response including error message if incorrect protocol 5/5

Useful response including error message if file not found 5/5

Source Code shows good structure and comments 5/5