Assignment1: Sockets: FTP Client and Server

CS390 Data Networking

Time Estimate: +/-20 hours

Create an ftp client and server.

You can read more about ftp here:

* <http://en.wikipedia.org/wiki/File_Transfer_Protocol>
* <http://tools.ietf.org/html/rfc765>

Implement a subset of commands for an ftp client and server. The commands are:

* HELP: lists ftp commands with explanations
* USER: specifies a user for authentication
* PASSWORD: specifies a user’s password for authentication
* DIR: lists the files in the server’s current directory
* CD <path>: changes the server’s current directory to the new path. The path can be relative or absolute
* LCD <path: changes the client’s current directory to the new path. The path can be relative or absolute
* DEL <filename>: deletes the server file specified by <filename> in the current directory
* GET <filename>: gets the server file specified by <filename> in the current directory and places the file in the client directory using the same <filename>
* PUT <filename>: puts the client file specified by <filename> in the current directory and places the file in the server directory using the same <filename>

Example:

**ftp 54.149.164.48**

**user bob**

OK. Please type password next.

**password csrocks44**

Incorrect user/password

**user bob**

OK. Please type password next.

**password csrocks55**

User logged in.

**dir**

file1.txt

file2.txt

file3.txt

mysteryfolder

**get file1.txt**

Retrieving file1.txt. Retrieval complete.

**cd ./mysteryfolder**

Change directory complete.

**dir**

evilvirus.exe

mystery1.exe

mystery2.exe

**del evilvirus.exe**

File delete complete.

**dir**

mystery1.exe

mystery2.exe

**get mystery1.exe**

Retrieving file1.txt. Retrieval complete.

**cd ..**

Change directory complete.

**put mystery1.exe**

Uploading mystery1.exe. Upload complete.

**dir**

file1.txt

file2.txt

file3.txt

mysteryfolder

mystery1.exe