**Computer Networking**

**FTP Project – Homework #2**

**Programs for Homework #2**

For homework#2 of the ftp project, you have to modify both clientftp.c and serverftp.c files by adding appropriate code to implement the ftp commands given below:

**List of FTP Commands to Implement in Homework#2**

**Command Name Syntax**

1. user user username
2. pass pass password
3. quit quit
4. mkdir (or mkd) mkdir directory-name
5. rmdir (or rmd) rmdir directory-name
6. cd (or cwd) cd directory-name
7. dele dele filename
8. pwd pwd
9. ls ls
10. stat (or status) stat
11. help help

**Editing the Program Files**

You can edit the .c program files either on the UNIX system or on the PC. To edit a file on the UNIX system, use the vi editor. To edit the file on the PC, use Notepad and then transfer it to UNIX system using ftp. If you are editing on the UNIX server, then transfer it to the PC using ftp.

**Backing up Files**

Irrespective of where you edit the files, transfer the files and keep an up-to-date copy on your PC. It is preferred to have two copies, one on the PC and one on a flash drive. This type of backup will help, in case you lose the file or corrupt it or the UNIX server goes down.

**Testing Programs**

You have to test all the commands stated about. First login to UNIX server, change directory to server, issue script command, and then run serverftp. Login second time to UNIX server, opening a second window, change directory to client, issue script command, and then run clientftp.

Issue all the above ftp commands starting with user, followed by pass, and then other commands in a logical order. Finally, issue the quit command.

**Capturing Client and Server Output**

In order to capture the output of a program, issue “script” command before running the program. After running the program, that is, after issuing the quit ftp command, issue “exit” command to terminate the script command. The script command will capture everything that appears on the screen into a file from the time it was issued until exit command is issued. On the client ftp side, copy this file into hw2\_clientftp\_output file. On the server ftp side, copy this file into hw2\_serverftp\_output file.

Make sure that you capture the output of both the client and server ftp programs in two separate files.

Finally, transfer the output files and the program files to your PC.

**Items to be Submitted for Homework #2**

Submit the following on or before the due date stated in the syllabus:

1. serverftp.c program
2. clientftp.c program
3. output of the server ftp
4. output of client ftp

**Submit the homework#2 files in electronic form** by emailing the above four files including the captured output of the server and client ftp programs.