

Project 2

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Due Dec 1 by 11:59pm **Points** 50 **Submitting** a file upload **File Types** zip
Available after Nov 10 at 12am

See the attached documents for the second Sockets API programming assignment. Please get an early start on this assignment, and remember to use the correct programming languages, as I will not accept programs in other languages.

This assignment is designated as the Portfolio Assignment for this course. This means that (after the last-submission day, one week after the due date) you are allowed to publicly share it. This does not mean you are allowed to copy from any remaining online, and when we check for plagiarism we do check public repos.

Attachments

- [Project2.pdf](#) 

Project 2 Rubric

Criteria	Ratings		Pts
Documentation - Header Block Header block for programs include Programmer Name, Program Name, Program Description, Course Name, Last Modified	2.0 pts Full Marks	0.0 pts No Marks	2.0 pts
Documentation - Comments Function Descriptions are complete with pre- and post-conditions. Comments outline program flow and call out important techniques.	4.0 pts Full Marks	0.0 pts No Marks	4.0 pts
Verification - ftserve setup ftserve starts on HostA, validates parameter, and waits on for client request	2.0 pts Full Marks	0.0 pts No Marks	2.0 pts
Verification - ftclient setup ftclient starts on HostB, and validates command-line parameters	2.0 pts Full Marks	0.0 pts No Marks	2.0 pts
Verification (Control) - Connection Control connection established between ftserve (server) and ftclient (client)	2.0 pts Full Marks	0.0 pts No Marks	2.0 pts
Verification (Control) - command sent ftclient sends a command	2.0 pts Full Marks	0.0 pts No Marks	2.0 pts
Verification (Control) - accept/interpret command ftserve accepts and interprets command	3.0 pts Full Marks	0.0 pts No Marks	3.0 pts
Verification (Data) - Connection Data connection established between ftserve (client) and ftclient (server)	2.0 pts Full Marks	0.0 pts No Marks	2.0 pts
Verification (Data) - Directory Listing When appropriate, ftserve sends its directory to ftclient on the data connection, and ftclient displays the directory on-screen	3.0 pts Full Marks	0.0 pts No Marks	3.0 pts

Criteria	Ratings		Pts
Verification (Data) - File Transfer When appropriate, ftserve validates filename, and either sends the contents of filename on the data connection or sends an appropriate error message to ftclient on the control connection. Error messages include file not found. Points: Errors 2 pts, short file 3 pts, long file 3 pts	8.0 pts Full Marks	0.0 pts No Marks	8.0 pts
Verification (Data) - File Save ftclient saves the file, and handles "duplicate file name" issues if necessary (does not auto-overwrite)	3.0 pts Full Marks	0.0 pts No Marks	3.0 pts
Verification (Data) - Transfer Complete Transfer Complete message displayed on screen	1.0 pts Full Marks	0.0 pts No Marks	1.0 pts
Verification (Data) - Connection Closed ftserve closes the data connection after directory or file transfer	1.0 pts Full Marks	0.0 pts No Marks	1.0 pts
Verification (Control) - Connection Closed ftclient closes control connection closed after operation complete	2.0 pts Full Marks	0.0 pts No Marks	2.0 pts
Verification - Server Continues ftserve can accept additional connections until terminated by supervisor (same user who initiated ftserver)	3.0 pts Full Marks	0.0 pts No Marks	3.0 pts
Requirements - README and Submission Files and README submitted according to project submission guidelines. Programs compile/run exactly according to README specifications	3.0 pts Full Marks	0.0 pts No Marks	3.0 pts
Requirements - Well Modularized Server has at least functions which perform: Start-up, HandleRequest Client has at least functions which perform: Initiate Contact, MakeRequest, ReceiveData	3.0 pts Full Marks	0.0 pts No Marks	3.0 pts
Requirements - Originality Does not use sendFile or other prebuilt function/library which handles the majority of the project. Deduct up to 30 points if it does	0.0 pts Full Marks	0.0 pts No Marks	0.0 pts

Criteria	Ratings		Pts
Requirements - runs on separate FLIP servers Deduct up to 10 points for lack of multi-FLIP functionality	0.0 pts Full Marks	0.0 pts No Marks	0.0 pts
Requirements - Required Languages ftserve coded in C/C++ ftclient coded in Java or Python Deduct 25 points for each incorrect language	0.0 pts Full Marks	0.0 pts No Marks	0.0 pts
Requirements - Citations Cites sources for borrowed code Deduct up to 50 points for sources not cited	0.0 pts Full Marks	0.0 pts No Marks	0.0 pts
Style - Code Coded using readable indentation, white-space, etc.	2.0 pts Full Marks	0.0 pts No Marks	2.0 pts
Style - Output Useful, readable, clear output.	2.0 pts Full Marks	0.0 pts No Marks	2.0 pts
Extra Credit Server is multi-threaded (2) Client can change server directory (2) Can transfer binary file (1) Username/Password Access (2) Other (?)	0.0 pts Full Marks	0.0 pts No Marks	0.0 pts
Late Penalty Deduct 10% of earned points for each day late.	0.0 pts Full Marks	0.0 pts No Marks	0.0 pts
Total Points: 50.0			