



Unix System

my_ftp



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Administrative details

- Your sources shall be turned-in on the PSU_year_myftp directory
ex: PSU_2013_myftp for the 2013-2014 solar year
- The whole project shall compile with a single Makefile.
- Binary has to be located in your project's root directory.
- Yammer's "PSU 2019" group can handle official informations about the project
- This project is to be carried out alone.



Subject

- The purpose of this project is to create a FTP server.
- You MUST implement the given protocol (bonuses must be RFC959 compliant).
- You MUST implement request sequences explained in the given protocol.
- The network communication will be achieved with TCP sockets.

.1 Server

- Synopsis:

```
1 Usage : ./server port path
```

- port is the port number on which the server socket is listening.
 - path is the path to the home directory for the "Anonymous" user.
- The server MUST be able to handle several clients at the same time by using a **fork**.



Indices

If you are very comfortable with **select**, you can use it. Nevertheless, you will have the opportunity to use it during the my_irc project, so take advantage of this project to learn about a forking server.



If you use **select**, do things correctly:

- select for reading
- select for writing
- nonblocking server

If your server is badly designed because you wanted to use **select**, you will lose numerous points during the defense.

- The server MUST match the following requirements:
 - An authentication with an "Anonymous" account and an empty password
- Data transfer MUST use "active" or "passive" mode as explained in the bootstrap.



Indices

Use the given program to test if your connection sequence is available



Indices

Use netcat on Epitech's FTP server (ftp.epitech.eu) to discover how it works



.2 Bonus

- a FTP client with ls, pwd, cd, get and put commands
- lcd + lpwd + lls
- mget + mput
- rights management
- home directory different for each user account
- handle the "bin" and "asc" modes
- automatic completion for get
- automatic completion for put

.3 Super Bonus

- Total compliance with the RFC



Forbidden functions

- recv
- send
- all the system calls that make a socket non-blocking.



Allowed functions

- the C library minus the forbidden functions