ECE 391, Computer Systems Engineering
MP3 Checkpoint 4 Hints

General Guidelines

This document is intended to provide some clarity as to what is expected from your submission at demo. If you have any feedback to make the document more clear and concise please let us know on Piazza.

1. It's time to execute more user programs! You **MUST** be able to execute user programs by this checkpoint. If you are not able to, you will get no functionality points.
2. **Read the Appendix very carefully!**
3. Remember to validate your input parameters!
4. Get comfortable with function pointers and writing assembly code in separate .S files as working with inline assembly can get tricky and lead to subtle bugs in your code(specially in `execute`!).
5. Remember to take advantage of all the main functionalities C and x86 Assembly offer you, **code smart!** For example, use structs for the file system structures and use arrays for the terminal!
6. Remember to maintain your **bug log**! While we know that you are capable programmers, we know that everyone has bugs. If you tell us that you had no bugs and hence have none in your bug log, we won't believe you.
7. As always try to use your best style and document code as you write it.

More General Guidelines!

1. You should be able to support more than one working recursive `shell`(this means that once `shell` is running you should be able to execute another `shell` on top of it and so on). We require you to have at max 3 such shells. It is okay if the last shell is unable to run any programs, but it must be able to exit. All other shells must be able to execute programs.
2. Test all user programs(except `sigtest`). They should all work correctly!
3. Make sure that the running of one user program does not affect the running of the next program. `pingpong` will never stop running and that is okay, you have restart the OS to run other programs.
4. Make sure that you still have function interfaces for assembly functions.