

## Make-up Homework Instruction (due May 16, 11:55 p.m)

**Note: Solo No Collaboration Allowed.**

**Cheating and plagiarism will not be tolerated.** If you have any questions about a specific case, please ask me. We will be checking for this! NYU Tandon's Policy on Academic Misconduct: <http://engineering.nyu.edu/academics/code-of-conduct/academicmisconduct>

## Homework Notes

### General Notes

- Read the assignment carefully, including what files to include.
- Don't assume limitations unless they are explicitly stated.
- Treat provided examples as just that, not exhaustive list of cases that should work.
- When in doubt regarding what needs to be done, ask. Another option is test it in the real UNIX operating system. Does it behave the same way?
- Test your solutions, make sure they work. It's obvious when you didn't test the code.

## Implementing tail command on xv6

The traditional UNIX tail utility can print out lines from the end of a file. If the number of lines is not configured (i.e., tail FILE), tail would print out the last 10 lines of its input. Or we could trigger by calling tail -NUM FILE, for example tail -2 README to print the last 2 lines of the file README.

Write a tail program. If a filename is provided on the command line then tail should open it, read and print the last NUM lines (no extra blank lines), and then close it. If no filename is provided, tail should read from standard input.

Here's some examples of the usage of tail:

---

```
$ tail README
```

```
To build xv6 on an x86 ELF machine (like Linux or FreeBSD), run "make". On  
non-x86 or
```

```
non-ELF machines (like OS X, even on x86), you will need to install a  
cross-compiler
```

```
gcc suite capable of producing x86 ELF binaries. See
```

```
http://pdos.csail.mit.edu/6.828/2014/tools.html. Then run "make
```

```
TOOLPREFIX=i386-jos-elf-". To run xv6, install the QEMU PC simulators. To run in  
QEMU, run "make qemu".
```

```
To create a typeset version of the code, run "make xv6.pdf". This requires the  
"mpage"
```

```
utility. See http://www.mesa.nl/pub/mpage/.
```

---

```
$ grep the README | tail
```

```
Version 6 (v6). xv6 loosely follows the structure and style of v6, xv6 borrows  
code from
```

```
the following sources: JOS (asm.h, elf.h, mmu.h, bootasm.S, ide.c, console.c,  
and
```

```
others) Plan 9 (entryother.S, mp.h, mp.c, lapic.c) In addition, we are grateful  
for
```

```
the bug reports and patches contributed by
```

```
The code in the files that constitute xv6 is To run xv6, install the QEMU PC  
simulators.
```

```
To run in QEMU, run "make qemu".
```

```
To create a typeset version of the code, run "make xv6.pdf". This requires the  
"mpage"
```

```
utility. See http://www.mesa.nl/pub/mpage/.
```

---

```
$ tail -2 README
```

```
To create a typeset version of the code, run "make xv6.pdf". This requires the  
"mpage"
```

```
utility. See http://www.mesa.nl/pub/mpage/.
```

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## Submitting the Assignment

Submit tail.c on NYU Classes.