SSE3044 Introduction to Operating Systems
prof. Jinkyu Jeong

Project 0. Install and boot xv6

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TAs
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Project plan

- Total 4 projects
  0) Starting xv6 operating system
  1) Process management
  2) Virtual memory
  3) Scheduling
  4) Filesystem
Operating system
Operating system
xv6 operating system

- Unix-like teaching operating system developed by MIT
- Based on multiprocessor x86 system

Boot message with ls command
How to install and run

* Install and build xv6
1) (Move to directory where to install xv6)
2) $sudo apt install git
3) $git clone https://github.com/mit-pdos/xv6-public.git

* Install qemu emulator
1) $sudo apt install qemu

* Run xv6
1) $cd xv6-public
2) $make qemu-nox

* Terminate xv6
1) ctrl + ‘A’ + ‘x’ (keep press all keys)
Project 0. Install and boot xv6

- Follow the instructions on slides
- Print your student id, name (mandatory), and any message (optional)

```
cpu1: starting 1
cpu0: starting 0
sb: size 1000 nblocks 941 ninodes 200 nlog 30 logstart 2 inodestart 32 bmap start 58
init: starting sh
Student ID: 201xxxxxxxx
Name: Gildong Hong
=============Any Message==============
```

$
Submission

• Compress your code as YourStudentID-0.tar.gz

• Send your file to minwoo.ahn@csl.skku.edu
  • Please command $make clean, before submission

• PLEASE DO NOT COPY
  • YOU WILL GET F GRADE IF YOU COPIED

• Due date: 3/20(Tue.), 23:59:59 PM
  • -25% per day for delayed submission
Tips

• Reading xv6 commentary will help you a lot
Questions

• If you have questions, please email to TA

• You can also visit Semiconductor Building #400509
  • Please email TA before visiting
Appendix. ctags & grep

- Install ctags
  - `$sudo apt install ctags`

- Vim setting for ctags
  - `$ctags -R (where you will use)`
  - `$vi ~/.vimrc`
  - Add “set tags=[Location of tag file]/tags”
  - `$source ~/.vimrc`

- Ctags usage
  - `ctrl + ]` : follow tag
  - `ctrl + t` : back to last tag

- Grep Usage
  - `grep -nR "[string to search]"`
Appendix. vi instructions

** $sudo apt install vim

① vi [filename] -> Open file
② i -> keyboard typing mode
③ esc + :w -> save file
④ esc + :q -> exit file (esc + :wq -> save and exit)
⑤ /[string] -> search [string]
⑥ u -> back to last command
⑦ :vs -> open additional file on same session
⑧ dd -> erase one line
⑨ :set mouse=a -> activate mouse
① Drag and y -> copy multi-line
② p -> paste

* Reference: http://www.antsys.co.kr/data/vi_editor.htm