Project 0. Install and boot xv6

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TAs
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Project plan

Total 7 projects

0) Starting xv6 operating system (5%)
1) System call (10%)
2) Thread (15%)
3) Synchronization (15%)
4) Scheduling (15%)
5) Page fault handler (20%)
6) Copy on Write (20%)

- It is not yet confirmed. When confirmed, we will update it at the following address.
  - http://csl.skku.edu/SWE3004S19/Overview
Operating system
Operating system

- Apple
- Linux
- Windows
- iOS
- Android
- Ubuntu
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) $wget http://csl.skku.edu/uploads/SWE3004S19/xv6-skku.tar.gz
3) $tar –xvf xv6-skku.tar.gz

* Install qemu emulator
1) $sudo apt install qemu

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

* Terminate xv6
1) ctrl + ‘a’ + ‘x’ (keep press all keys)
   • Or $halt
Project 0. Install and boot xv6

- Follow the instructions on slides

- Print your student id, name (mandatory), and any message (optional) (There is no format)
Submission

You should enter your ID & project no. (this time is 0) on `Makefile`

$make tarball

Then, `xv6-project-0-studentID.tar.gz` will be created in the parent folder.
Submission

• Send your file (xv6-project-0-studentID.tar.gz) to ks77sj@gmail.com

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

• Due date: 3/19(Tue.), 23:59:59 PM
  • Every one day delay, -25% penalty of the project score
Tips

• Reading xv6 commentary will help you a lot
  • [http://csl.skku.edu/SWE3004S19/Resources](http://csl.skku.edu/SWE3004S19/Resources)
Questions

• If you have questions, please email to TA

• You can also visit #85533. 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