Assignment-2

Linux System and its Applications

Systems and Storage Laboratory
Department of Computer Science and Engineering
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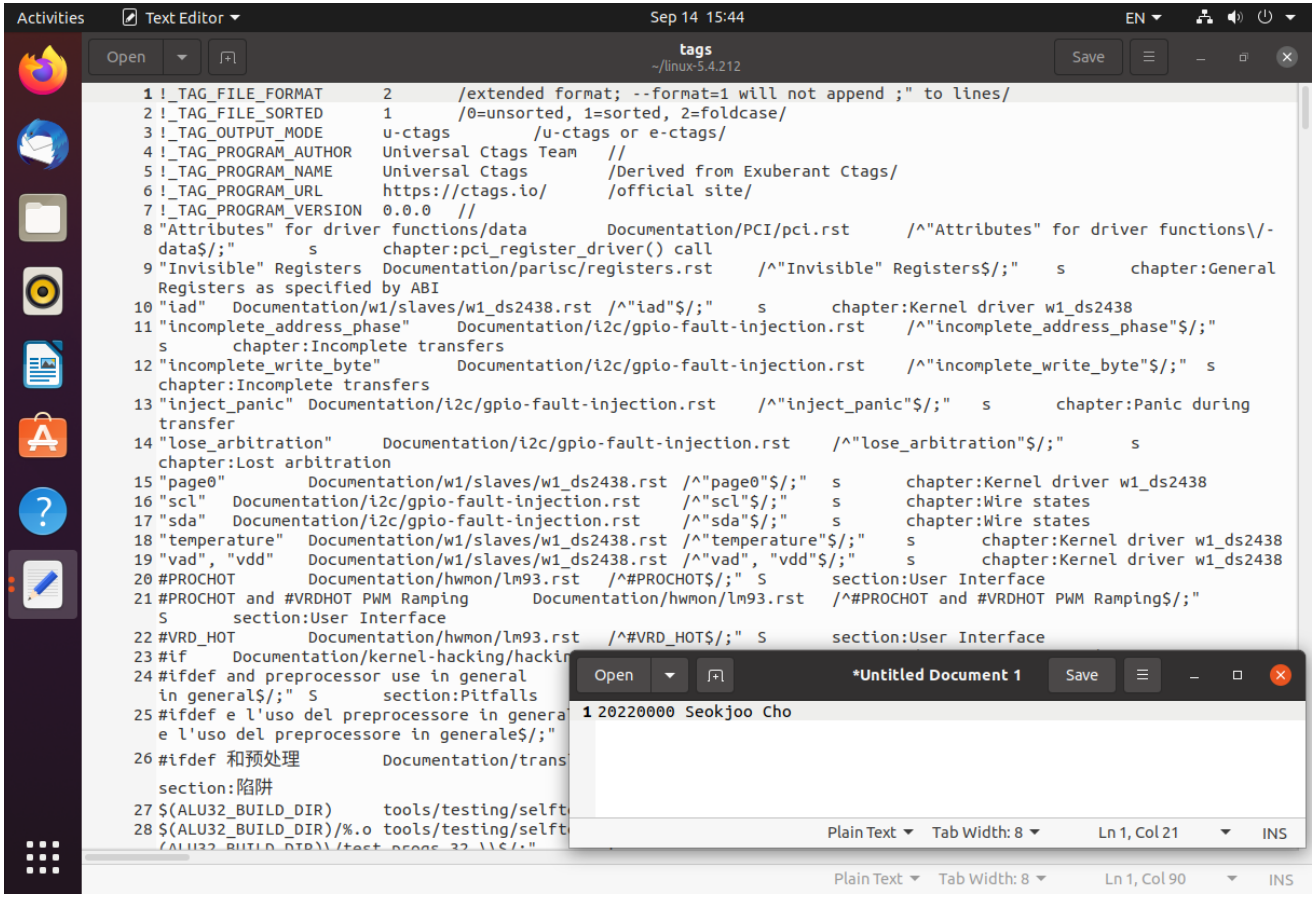
Assignment-2

- **Ctags :**
  1. Install ctags and read the manual (**`$ man ctags`**)
  2. Take a screenshot of '**`tags`**' file content
- **Cscope :**
  1. Install cscope and read the manual (**`$ man cscope`**)
  2. Take a screenshot of '**`cscope.out`**' file content
     - You can replace this with the cscope execution screenshot
- **Tmux :**
  1. Install tmux and read the manual (**`$ man tmux`**)
  2. **Window manipulation** screenshot
     - Create multiple panels

- **Submit within pdf which includes all three screenshots**

Ctags

- **If you are using Ubuntu Desktop**
  - Generate `tags` file, open with your favorite editor (e.g. vim)
  - Text Editor -> Your name with student id



Ctags

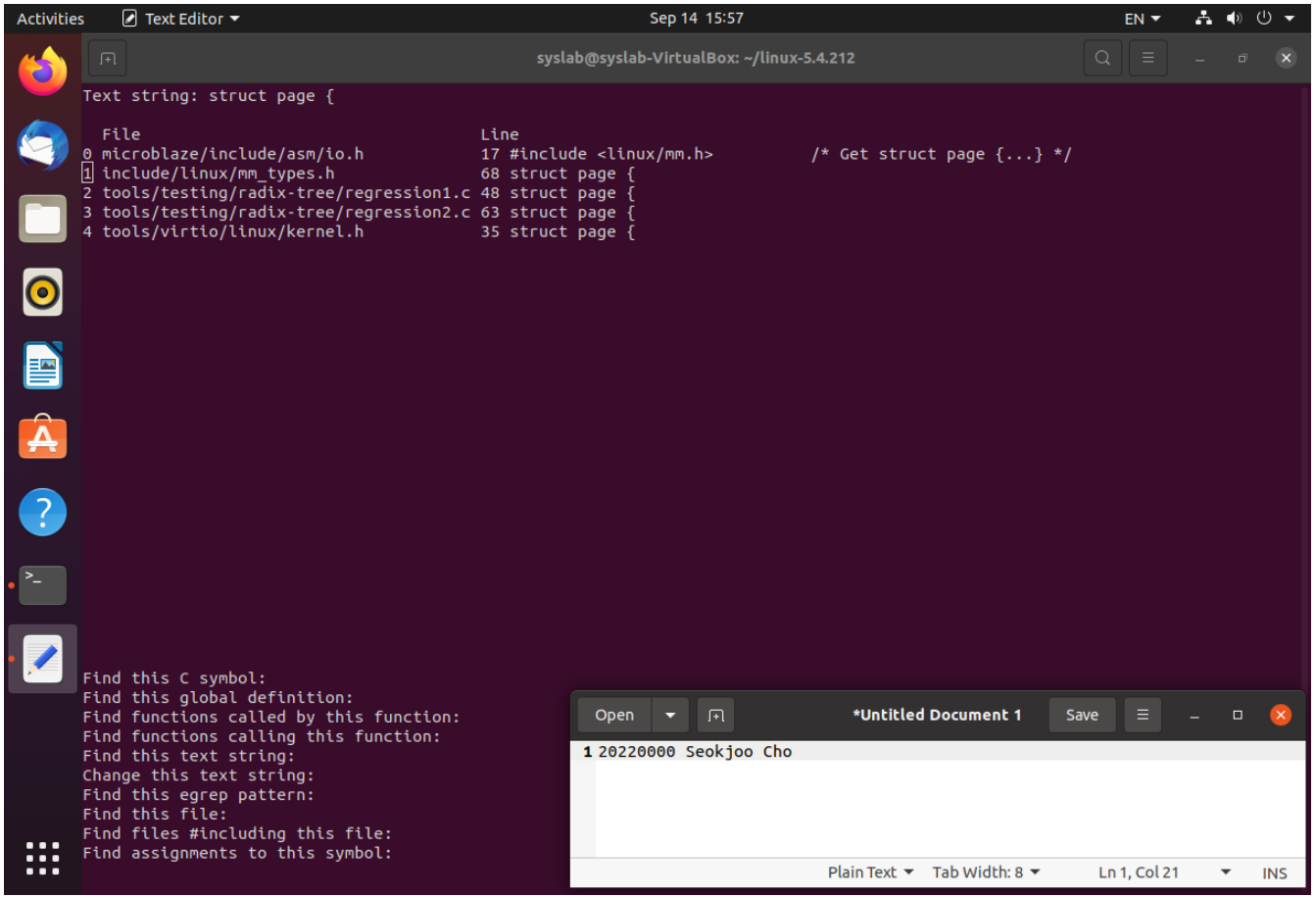
- **If you are using Ubuntu Server**
  - Generate `tags` file, open with your favorite editor (e.g. vim)
  - Enter command mode -> Type your name and student id

```
!_TAG_FILE_FORMAT       2       /extended format; --format=1 will not append ;" to lines/
!_TAG_FILE_SORTED       1       /0=unsorted, 1=sorted, 2=foldcase/
!_TAG_OUTPUT_MODE       u-ctags /u-ctags or e-ctags/
!_TAG_PROGRAM_AUTHOR    Universal Ctags Team    //
!_TAG_PROGRAM_NAME      Universal Ctags /Derived from Exuberant Ctags/
!_TAG_PROGRAM_URL       https://ctags.io/       /official site/
!_TAG_PROGRAM_VERSION   0.0.0   //
"Attributes" for driver functions/data  Documentation/PCI/pci.rst       /^"Attributes" for driver functions\/data$/;"   s       chapter:pci_register_driver() call
"Invisible" Registers   Documentation/parisc/registers.rst      /^"Invisible" Registers$/;"     s       chapter:General Registers as specified by ABI
"iad"   Documentation/w1/slaves/w1_ds2438.rst   /^"iad"$/;"     s       chapter:Kernel driver w1_ds2438
"incomplete_address_phase"      Documentation/i2c/gpio-fault-injection.rst       /^"incomplete_address_phase"$/;"        s       chapter:Incomplete transfers
"incomplete_write_byte" Documentation/i2c/gpio-fault-injection.rst       /^"incomplete_write_byte"$/;"   s       chapter:Incomplete transfers
"inject_panic"  Documentation/i2c/gpio-fault-injection.rst       /^"inject_panic"$/;"    s       chapter:Panic during transfer
"lose_arbitration"      Documentation/i2c/gpio-fault-injection.rst       /^"lose_arbitration"$/;"        s       chapter:Lost arbitration
"page0" Documentation/w1/slaves/w1_ds2438.rst   /^"page0"$/;"   s       chapter:Kernel driver w1_ds2438
"scl"   Documentation/i2c/gpio-fault-injection.rst       /^"scl"$/;"     s       chapter:Wire states
"sda"   Documentation/i2c/gpio-fault-injection.rst       /^"sda"$/;"     s       chapter:Wire states
"temperature"   Documentation/w1/slaves/w1_ds2438.rst   /^"temperature"$/;"     s       chapter:Kernel driver w1_ds2438
"vad", "vdd"    Documentation/w1/slaves/w1_ds2438.rst   /^"vad", "vdd"$/;"      s       chapter:Kernel driver w1_ds2438
#PROCHOT        Documentation/hwmon/lm93.rst    /^#PROCHOT$/;"  S       section:User Interface
#PROCHOT and #VRDHOT PWM Ramping        Documentation/hwmon/lm93.rst    /^#PROCHOT and #VRDHOT PWM Ramping$/;"  S       section:User Interface
:20220000 Seokjoo Cho
```

Your name here, please!

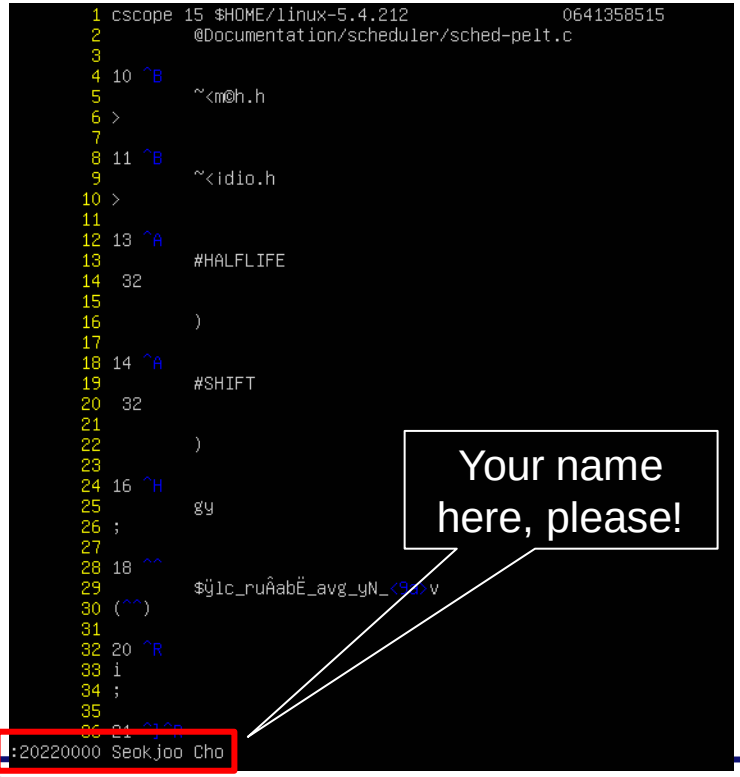
Cscope

- **If you are using Ubuntu Desktop**
  - Generate `cscope.out` file, open with your favorite editor (e.g. vim)
    - Cscope execution screen is also good to go!
  - Text Editor -> Your name with student id

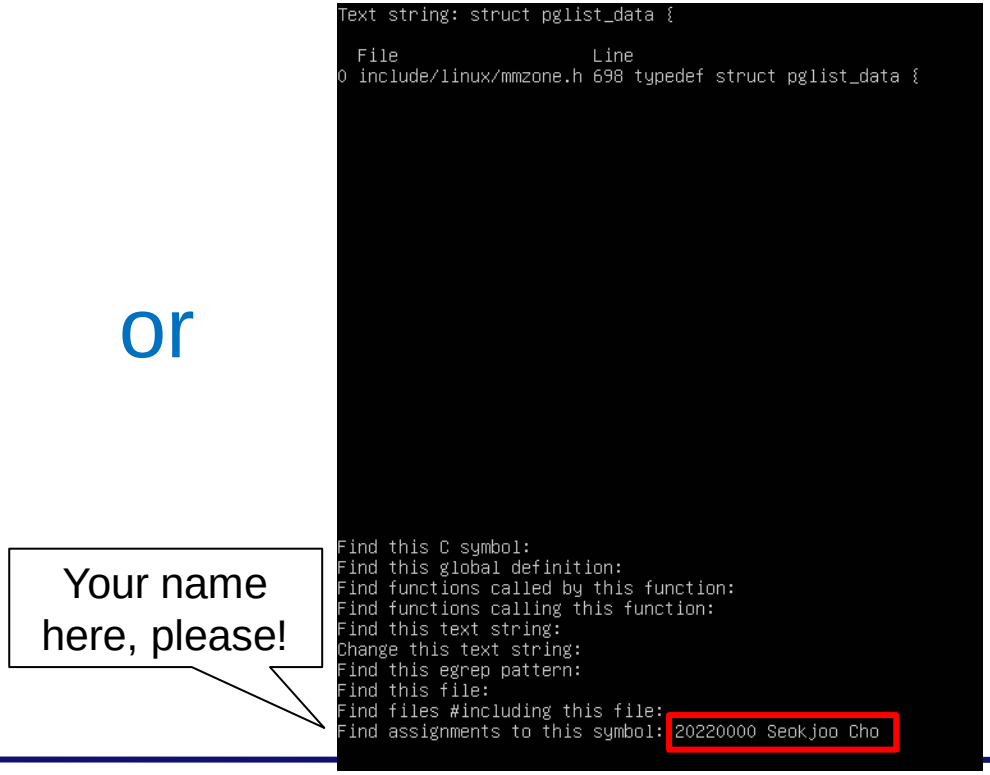


Cscope

- **For Ubuntu Server users, you have two options**
  1. Generate `cscope.out` file, open with your favorite editor
     - Enter command mode -> Type your name and student id
  2. Cscope execution screen
     - Search menu -> Type your name and student id



or

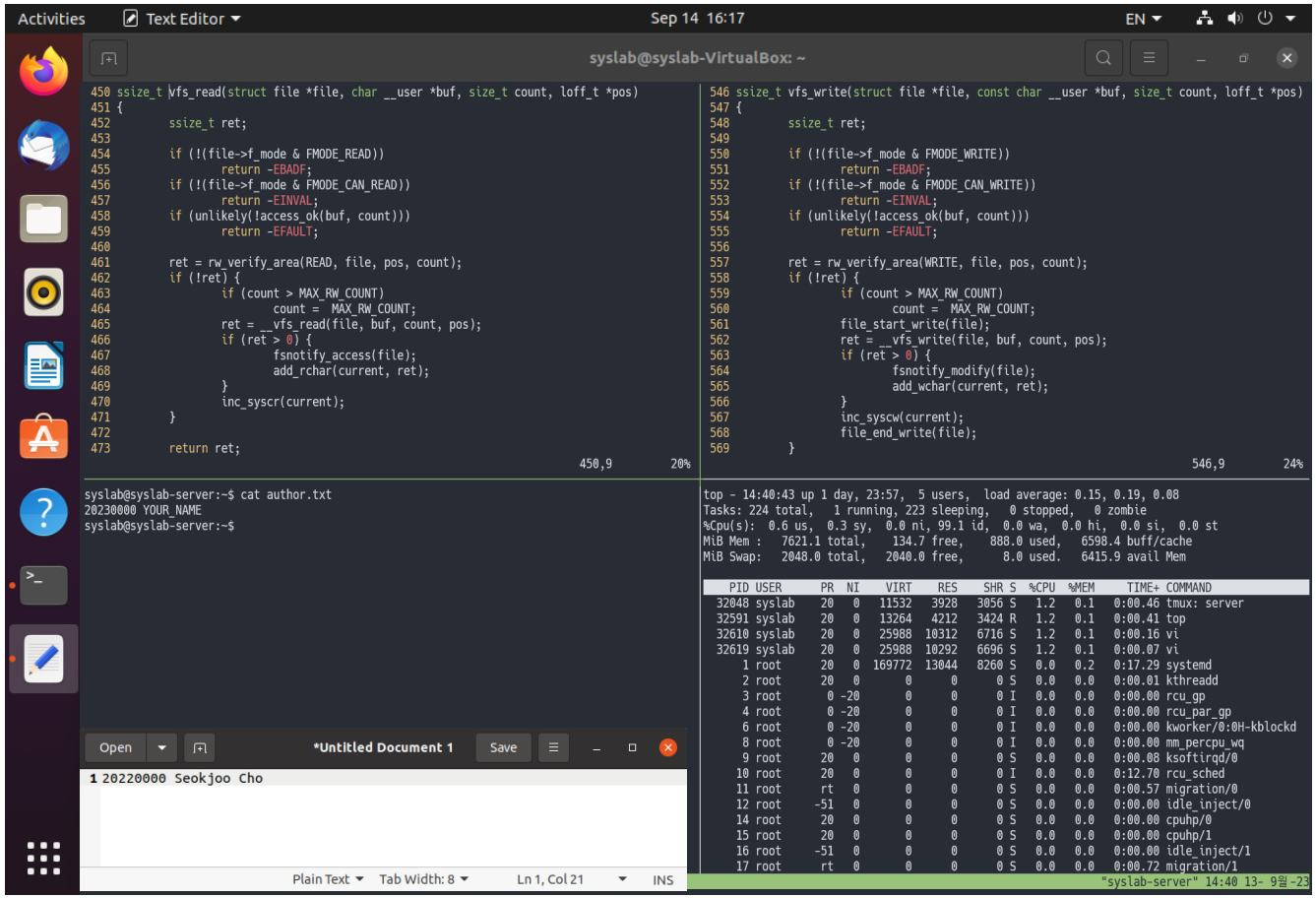


Cscope

- **Find the kernel functions by using cscope.**
  - Find vfs_read, and vfs_write function bodies (where the function is declared).
  - Remind that you can search and explore functions by using ctags and cscope.

Tmux

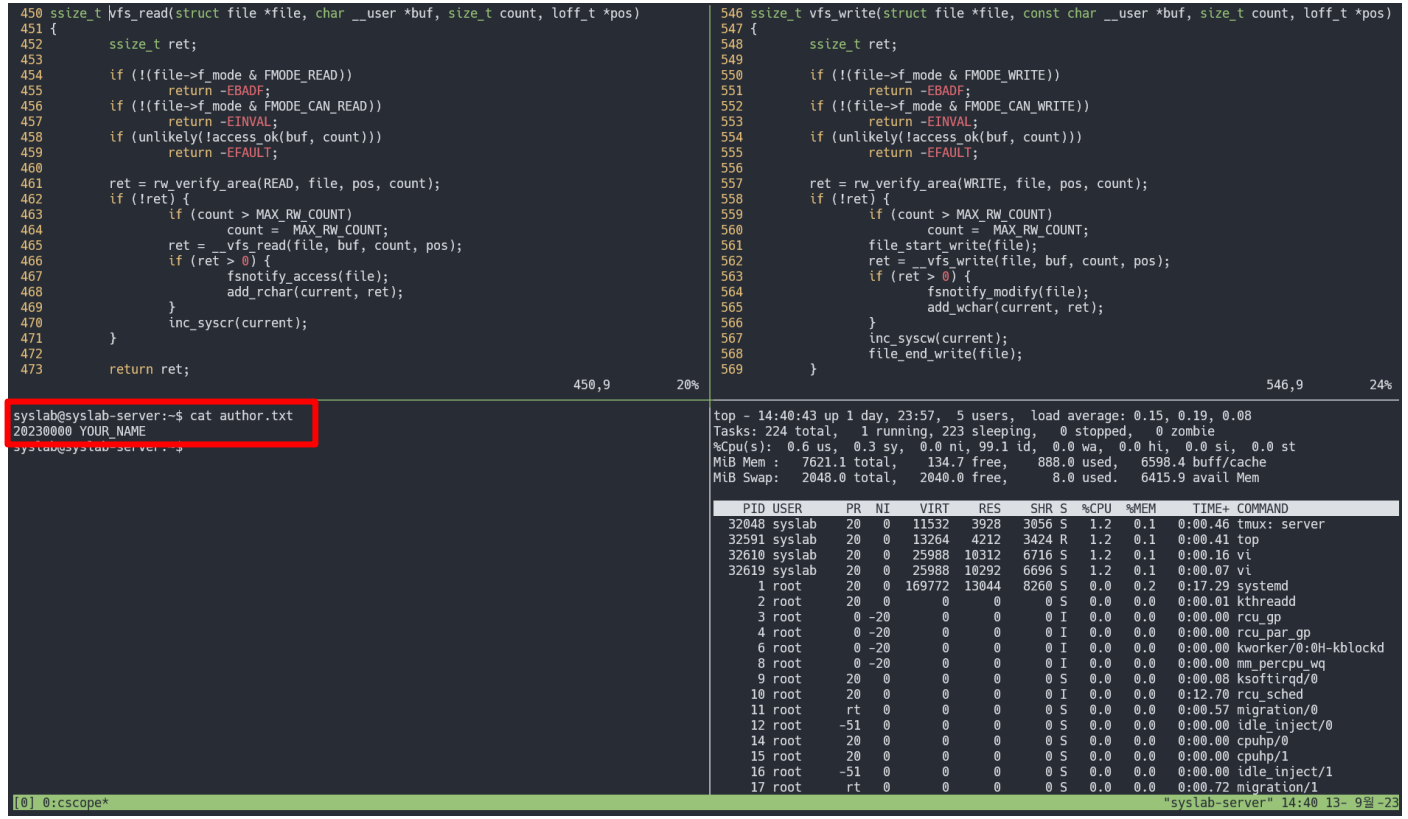
- **If you are using Ubuntu Desktop**
  - Create four panes as below.
  - Text Editor -> Your name with student id.



Tmux

- **If you are using Ubuntu Server**
  - Create four panes as below.
  - Print out a text file that contains your name and student id in one pane.

Your name here, please!



Reminder of the submission details

- **Submission details (all screenshots in one pdf file).**
  - Screenshots about ctags and cscope.
    (please refer to the slide2; **three screenshots**).
  - Screenshot of Final view
    (please refer to the slides 8 & 9; **one screenshot**).
    - Which should include vfs_read, and vfs_write function body.

Screenshot 1

‘**tags**’ file content

Screenshot 2

‘**cscope.out**’ file content

Screenshot 3

Tmux Window manipulation scheenshot

Screenshot 4

vfs_read function body.	**vfs_write** function body.
Your student ID and name.	Linux **top** command.