

Linux Basic comands

for ITS332 (Network lab)



By Ratanachai S.

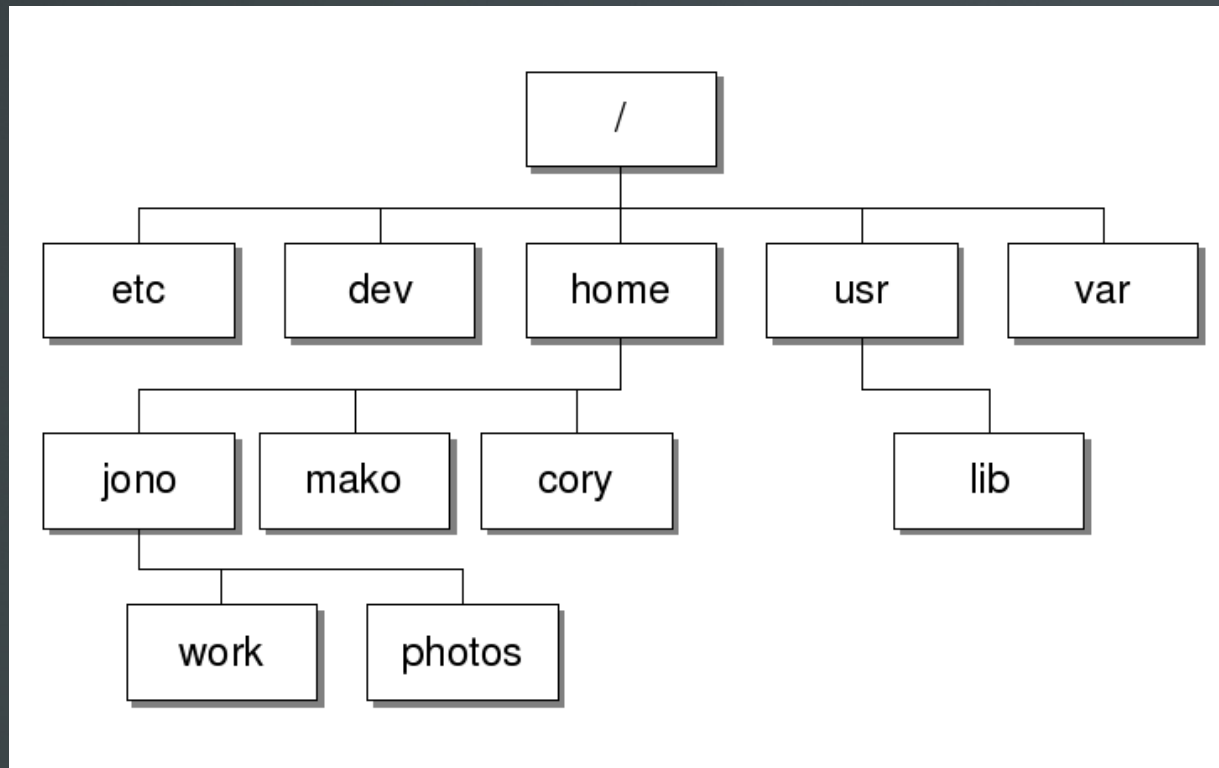
Why Linux

- Unix based
 - Strong link with computer networking
 - Some Internet protocol were first developed on Unix
- Best for learning network concepts
 - Easier to config/perform network related tasks
 - Can be configured as a router easily
- Most common for network servers/devices
 - Firewall, Router, Web server, Mail server



Linux File Structure

- / (root) is the top most of file structure.
- Comparing with MS Windows'



Linux Basics

- Linux is ...
 - Case sensitive
 - Multiuser OS
 - File Permission
- Linux admin is called "Root" or "Super User"
- Command Line Structure

```
cmd [-opt1 -opt2] param1 param2 ...
```



Basic Commands

- ls (list), pwd (present working directory)

```
ls -l
```

```
ls -a
```

```
pwd
```

- cd (change directory)

```
cd /home/username
```

```
cd ../
```

```
cd ../../..
```

```
cd ~
```



Basic Commands

- **cp (copy)**

```
cp file1 file2
```

```
cp -a dir1 dir2
```

- **mv (move/rename)**

```
mv file destination_dir
```

```
mv old_name new_name
```

- **rm (remove)**

```
rm file
```

```
rm -rf dir
```



Basic Commands

- `mkdir` (Make directory), `rmdir` (Remove directory)

```
mkdir directory
```

```
rmdir directory
```

- **Commands to view file content**

```
less filename
```

```
cat filename
```

- **Edit file content**

```
nano filename
```

```
gedit filename
```



Sudo, Locate, Man page

- Sudo (Superuser Do)

```
sudo rm entire_harddisk
```

```
sudo gedit system_config_file
```

- Locate

```
locate filename
```

```
sudo updatedb
```

- man (Manual)

```
man grep
```

```
man -k 'rename'
```



Redirect & Pipe

- > (Redirect)

```
cat file1 file2 > new_file
```

```
echo 'Hello World' > new_file
```

```
man ls > manual_of_ls.txt
```

- | (Pipe)

```
cat /etc/hosts | wc
```

```
wc /etc/hosts
```

```
cat /etc/hosts | grep 'localhost'
```

```
grep 'localhost' /etc/hosts
```

```
ls -R / | less
```



Keys combination

- Ctrl+D: finish inputting
- Ctrl+C: kill the process
- Ctrl+L: clear screen
- Up: for previous commands
- Tab: Autocomplete filename



Install/Uninstall program

- `sudo apt-get install/remove programname`
`sudo apt-get install program_name`
`sudo apt-get remove program_name`



Linux Command Lab Task

- Create a directory named 'Back up' on your Desktop
 - Copy resolv.conf to the directory (where is it?)
 - Rename the file to resolv.conf.bak
 - Backup your home's Documents folder into the directory
- What command to display Calendar
 - Learn how to use it
- Install another web browser called "Epiphany"



Linux Command Lab Task

- What command to "list contents of directories in a tree-like format"?
- Install and learn how to use it
- List out a command history (Commands that has been issued previously), and save it into a file called 'history.txt'
- Count a number of time you execute ls command.

