

Linux Quiz (Ubuntu)

Process Management

- Show kernel version.
`uname -r`
- Show kernel file and its size.
`ls -l /boot (vmlinuz-2.6.27-7-generic)`
- Show CPU information.
`more /proc/cpuinfo`
- Run a process with lowest priority (least favorable).
`nice -n 19 sleep 100`
- Run a process, pause, and resume.
`sleep 100`
`ctrl-z`
`fg`
- Run a process in background and terminate.
`sleep 100 &`
`kill [pid]`
- Run two processes and connect them using a pipe.
`ls -lR / | more`
- Run three processes in background, and bring the second to the foreground.
`sleep 100 &`
`sleep 200 &`
`sleep 300 &`
`fg 2`
- Show elapsed time since the last booting.
`uptime`

User Management

- Change password.
`passwd`
- Show online users.
`finger`
- Show what users are doing.
`w`
- Enable administrator (root) account.
`sudo -i`
- Add a new user and remove.
`sudo -i`
`adduser somchai`
`deluser somchai`

Network Management

- Remote login to Chula server.
`telnet pylorus.it.chula.ac.th (or using ssh)`
`exit`
- Transfer a file from Chula FTP.
`ftp pylorus.it.chula.ac.th (or using sftp)`
`binary`
`prompt`
`get/put myfile.dat`
`bye`
- Send an email to someone.
`telnet pylorus.it.chula.ac.th (or using ssh)`
`pine`
- Show IP address (host computer).
`ifconfig (inet addr)`
- Show MAC address (host computer).
`ifconfig (HW addr)`
- Show IP address (www.chula.ac.th).
`dig www.chula.ac.th`
- Show connection speed to Google.
`ping www.google.co.th`
- Download a file through HTTP in the middle of the night.
`at midnight`
`wget http://pioneer.netserv.chula.ac.th/~achatcha/logo.gif`
`ctrl-d`
- File sharing (server/client เป็น Windows/Linux)
ใช้ Samba หรือซอฟต์แวร์ตัวอื่นๆ ใช้คำสั่ง `mount` เข้า network

Memory Management

- Show memory information.
`more /proc/meminfo`
- Show amount of free and used memory in the system.
`free`

Storage Management

- Make a file, rename, and delete.
`touch myfile1.txt`
`mv myfile1.txt myfile2.txt`
`rm myfile2.txt`
- Make a folder, rename, and delete.
`mkdir myfolder1`

```
mv myfolder1 myfolder2
rmdir myfolder2
```

- Make a file and change its permission so that only the owner can read.

```
touch myfile.txt
chmod 400 myfile.txt
```

- Make a file and both owner and group to “root.”

```
touch myfile.txt
sudo -i
chown root myfile.txt
chgrp root myfile.txt
```

- Create a symbolic link.

```
mkdir myfolder
ln -s myfolder symboliclink
```

- Estimate file space usage in human-readable format.

```
du -h
```

- Report file system disk space usage in human-readable format.

```
df -h
```

- Check and repair file system on harddisk.

```
fsck /dev/sda1
```

- Search for a file.

```
find / -name myfile.txt -print
```

- Mount harddisk or thumbdrive

```
mount ???
```

Utility commands

- Show the manual page of “man” command.

```
man man
```

- Make a beep sound using echo.

```
echo -e "\007"
```

- Change font color to bright green and background color to black.

```
echo -e "\033[32;1m"
echo -e "\033[40m"
```

- Show only the first 10 lines of /etc/passwd.

```
head -n 10 /etc/passwd
```

- Show only the last 10 lines of /etc/passwd.

```
tail -n 10 /etc/passwd
```

- Show only the lines containing “sys” in /etc/passwd.

```
grep sys /etc/passwd
```

- Show only the lines ending with “land” in /usr/share/dict/american-english.

```
grep "land$" /usr/share/dict/american-english
```

- Make a text-file, put your first name, save and display in hex.

```
pico myfile.txt  
od -h myfile.txt
```

- Write a program in C, compile, and execute.

```
pico myprog.c  
gcc myprog.c  
./a.out
```

- Write a program in C (with a syntax error), compile, and redirect error message to a file.

```
pico myprog.c  
gcc myprog.c 2> errors.txt
```

- Run a process that will continue after logout.

```
nohup sleep 100 &
```

- Shutdown in the next 10 minutes.

```
shutdown +10
```

- Make a folder with a file inside and compress it to “myfolder.tar.gz.”

```
mkdir myfolder  
cd myfolder  
pico myfile.txt  
cd ..  
tar -c myfolder | gzip -c > myfolder.tar.gz
```

- Make a folder with a file inside and compress it to “myfolder.zip” and make a check sum.

```
zip myfolder.zip myfolder  
md5sum myfolder.zip
```

- Make two files, and then make a new file that is the concatenation of the first and the second (use “cat”, “>,” and “>>”).

```
pico myfile1.txt  
pico myfile2.txt  
cat myfile1.txt > newfile.txt  
cat myfile2.txt >> newfile.txt
```

- Split /usr/share/dict/american-english into 10 files, x00 to x09 (10,000 line per file).

```
split -d -l 10000 /usr/share/dict/american-english
```

- Show only the first column in /etc/passwd.

```
cut -f 1 -d : /etc/passwd
```

- Show printer queue.

```
lpr
```

- Show current date and time.

```
date
```

- Show calendar.

```
cal
```