

Panji Iman Baskoro
171111023

Responsi 2 Praktikum Sistem Operasi

memastikan ssh,mysql dan apache2 sudah terinstall :

```
budosen@budosen:~$ service ssh status
ssh start/running, process 658
budosen@budosen:~$ service apache2 status
Apache2 is running (pid 959).
budosen@budosen:~$ service mysql status
Rather than invoking init scripts through /etc/init.d, use the service(8)
utility, e.g. service mysql status

The script you are attempting to invoke has been converted to an Upstart
job, but status is not supported for Upstart jobs.
budosen@budosen:~$ service mysql status
mysql start/running, process 813
budosen@budosen:~$ █
```

1. Buatlah user menggunakan "Nama Anda" dan Password "Nrp", setelah user dibuat tambahkan ke group "Responsi_SO_E" [Point 10]

```
budosen@budosen:~$ sudo su
root@budosen:/home/budosen# useradd panji -p171111023 -d /home/panji
root@budosen:/home/budosen# ls /home/
AB ab bc budosen cd de ef monic panji
root@budosen:/home/budosen# groupadd Responsi_SO_E
root@budosen:/home/budosen# usermod panji -G Responsi_SO_E
root@budosen:/home/budosen# groups panji
panji : panji Responsi_SO_E
root@budosen:/home/budosen# █
```

2. Buatlah sebuah hak akses untuk user yang sudah anda buat, agar ketika login menggunakan user "Nama Anda" bisa mengakses ke root [Point 10]

```
root@budosen:/home/budosen# usermod panji -G Responsi_SO_E -G sudo
root@budosen:/home/budosen# groups panji
panji : panji sudo
root@budosen:/home/budosen# usermod panji -G Responsi_SO_E
root@budosen:/home/budosen# usermod panji -G Responsi_SO_E,sudo
root@budosen:/home/budosen# groups panji
panji : panji sudo Responsi_SO_E
root@budosen:/home/budosen# █
```

```

root@budosen:/home/budosen# login panji
Password:

Login incorrect
budosen login: ^[[A^[[A^C
root@budosen:/home/budosen# login panji
Password:
Welcome to Ubuntu 12.04.1 LTS (GNU/Linux 3.2.0-29-generic-pae i686)

 * Documentation:  https://help.ubuntu.com/

System information as of Sun Dec  9 16:34:03 PST 2018

System load:  0.08               Processes:            76
Usage of /:   11.9% of 9.04GB    Users logged in:     1
Memory usage: 29%               IP address for eth0: 33.33.32.212
Swap usage:   0%                IP address for virbr0: 192.168.122.1

Graph this data and manage this system at https://landscape.canonical.com/

New release '14.04.5 LTS' available.
Run 'do-release-upgrade' to upgrade to it.

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

$ ls
$ pwd
/home/panji
$ sudo su
[sudo] password for panji:
root@budosen:/home/panji#

```

```

Last login: Sun Dec  9 16:47:21 2018
$ whoami
panji
$ service apache2 status
Apache2 is running (pid 2285).
$ sudo service apache2 stop
[sudo] password for panji:
$ sudo service apache2 stop
[sudo] password for panji:
 * Stopping web server apache2
apache2: Could not reliably determine the server's fully qualified domain name, using
127.0.1.1 for ServerName
... waiting [ OK ]
$ sudo service apache2 start
 * Starting web server apache2
apache2: Could not reliably determine the server's fully qualified domain name, using
127.0.1.1 for ServerName
[ OK ]
$

```

> (panji) 33.33.32.212

3. Login menggunakan user “Nama Anda” kemudian buatlah file dengan nama “NRP Anda”, dengan berisi Nama, Nrp, Praktikum, dan Kelas . Kemudian tampilkan! [Point 5]

```
GNU nano 2.2.6      File: 171111023      Modified
Panji Iman Baskoro
171111023
Praktikum S0
Kelas E
```

^G Get Help ^O WriteOut ^R Read File ^Y Prev Page ^K Cut Text ^C Cur Pos
^X Exit ^J Justify ^W Where Is ^V Next Page ^U UnCut Text ^T To Spell

```
$ pwd
/home
$ cd panji
$ nano 171111023
$ ls
171111023
$ cat 171111023
Panji Iman Baskoro
171111023
Praktikum S0
Kelas E
$
```

4. Login menggunakan user “Nama Anda” kemudian buatlah direktori dengan “Praktikan_E”, kemudian file yang sudah dibuat pindahkan ke direktori “Praktikan_E” sekarang. [Point 10]

```
$ whoami
panji
$ mkdir Praktikan_E
$ mv 171111023 Praktikan_E
$ ls
Praktikan_E
$ ls Praktikan_E
171111023
$
```

5. Login menggunakan user “Nama Anda” kemudian buatlah sebuah grup dengan nama “SO_E”, kemudian masukkan user “Nama Anda” ke dalam grup “SO_E” , tampilkan siapa saja user yang berada di grup “SO_E”[Point 15]

```
$ sudo groupadd SO_E
$ sudo cat /etc/groups | grep "SO_E"
cat: /etc/groups: No such file or directory
$ sudo cat /etc/group | grep "SO_E"
Responsi_SO_E:x:1017:panji
SO_E:x:1018:
$ groups panji
panji : panji root sudo Responsi_SO_E
$ sudo usermod panji -G sudo,Responsi_SO_E,SO_E
$ groups panji
panji : panji sudo Responsi_SO_E SO_E
$
```

6. Login menggunakan user “Nama Anda” kemudian tuliskan perintah untuk memodifikasi / merubah permission file Nrp.txt dengan ketentuan sebagai berikut : [Point 10]

- User mempunyai hak akses penuh
- Group mempunyai hak akses membaca dan menulis
- Orang lain mempunyai hak akses membaca saja.

```
$ whoami
panji
$ pwd
/home/panji/Praktikan_E
$ ls -l
total 4
-rw-rw-r-- 1 panji panji 50 Dec  9 16:40 171111023
$ chmod -R 764 171111023
$ ls -l
total 4
-rwxrw-r-- 1 panji panji 50 Dec  9 16:40 171111023
$
```

7. Login menggunakan user “Nama Anda” kemudian tuliskan perintah untuk mengganti kepemilikan user pada direktori “Praktikan” [Point 10]

```
$ whoami
panji
$ pwd
/home/panji
$ ls -l
total 4
drwxrwxr-x 2 panji panji 4096 Dec  9 16:44 Praktikan_E
$ sudo chown -R panji:S0_E Praktikan_E
$ ls -l
total 4
drwxrwxr-x 2 panji S0_E 4096 Dec  9 16:44 Praktikan_E
$
```

Perintah yang digunakan adalah **sudo chown -R <namauser>:<namagroup> <namafile/namafolder>**

8. Login menggunakan user “Nama Anda” lakukan perintah menampilkan PID, USER, NI, %MEM, COMMAND dan tampilkan 5 proses teratas kemudian rubah NI (Nice Value) menjadi 6 pada PID 1. [Point 10]

```
Current Fields: AEhIoqtwkNmbcdfgjplrsuvyzX for window 1:Def
Toggle fields via field letter, type any other key to return

* A: PID      = Process Id          y: WCHAN      = Sleeping in Function
* E: USER     = User Name           z: Flags      = Task Flags <sched.h>
  h: PR       = Priority             * X: COMMAND   = Command name/line
* I: NI       = Nice value
  o: VIRT     = Virtual Image (kb)   Flags field:
  q: RES      = Resident size (kb)   0x00000001    PF_ALIGNWARN
  t: SHR      = Shared Mem size (kb)  0x00000002    PF_STARTING
  w: S        = Process Status       0x00000004    PF_EXITING
  k: %CPU     = CPU usage             0x00000040    PF_FORKNOEXEC
* N: %MEM     = Memory usage (RES)    0x00000100    PF_SUPERPRIV
  m: TIME+    = CPU Time, hundredths 0x00000200    PF_DUMPCORE
  b: PPID     = Parent Process Pid    0x00000400    PF_SIGNALED
  c: RUSER    = Real user name        0x00000800    PF_MEMALLOC
  d: UID      = User Id              0x00002000    PF_FREE_PAGES (2.5)
  f: GROUP    = Group Name            0x00008000    debug flag (2.5)
  g: TTY      = Controlling Tty       0x00024000    special threads (2.5)
  j: P        = Last used cpu (SMP)   0x001D0000    special states (2.5)
  p: SWAP     = Swapped size (kb)     0x00100000    PF_USEDFPU (thru 2.4)
  l: TIME     = CPU Time
  r: CODE     = Code size (kb)
  s: DATA    = Data+Stack size (kb)
  u: nFLT     = Page Fault count
  v: nDRT     = Dirty Pages count
```

```
top - 17:32:48 up 29 min, 2 users, load average: 0.00, 0.01, 0.04
Tasks: 69 total, 1 running, 68 sleeping, 0 stopped, 0 zombie
Cpu(s): 0.3%us, 0.0%sy, 0.0%ni, 99.7%id, 0.0%wa, 0.0%hi, 0.0%si, 0.0%st
Mem: 507548k total, 171164k used, 336384k free, 12552k buffers
Swap: 975868k total, 0k used, 975868k free, 93700k cached

  PID USER      NI  %MEM  COMMAND
   861 mysql     0   6.6  mysqld
     1 root        0   0.4  init
     2 root        0   0.0  kthreadd
     3 root        0   0.0  ksoftirqd/0
     5 root        0   0.0  kworker/u:0
```

```
$ sudo renice 5 -p 1
1 (process ID) old priority 0, new priority 5
$ sudo renice 6 -p 1
1 (process ID) old priority 5, new priority 6
$
```

```
top - 17:35:42 up 32 min, 2 users, load average: 0.00, 0.01, 0.04
Tasks: 69 total, 1 running, 68 sleeping, 0 stopped, 0 zombie
Cpu(s): 0.0%us, 0.0%sy, 0.0%ni,100.0%id, 0.0%wa, 0.0%hi, 0.0%si, 0.0%st
Mem: 507548k total, 171544k used, 336004k free, 12588k buffers
Swap: 975868k total, 0k used, 975868k free, 93712k cached
```

PID	USER	NI	%MEM	COMMAND
1	root	6	0.4	init
24	root	5	0.0	ksmd
2	root	0	0.0	kthreadd
3	root	0	0.0	ksoftirqd/0
5	root	0	0.0	kworker/u:0

9. Login menggunakan user “Nama Anda” kemudian hapus 2 proses teratas. [Point 5]

```
$ whoami
panji
$ sudo top
top - 17:50:33 up 47 min, 2 users, load average: 0.00, 0.01, 0.04
Tasks: 68 total, 1 running, 67 sleeping, 0 stopped, 0 zombie
Cpu(s): 0.0%us, 0.3%sy, 0.0%ni, 99.7%id, 0.0%wa, 0.0%hi, 0.0%si, 0.0%st
Mem: 507548k total, 171164k used, 336384k free, 12820k buffers
Swap: 975868k total, 0k used, 975868k free, 93720k cached
```

PID	USER	PR	NI	VIRT	RES	SHR	S	%CPU	%MEM	TIME+	COMMAND
20	root	20	0	0	0	0	S	0.3	0.0	0:01.83	kworker/0:1
1	root	26	6	3012	1376	1064	S	0.0	0.3	0:00.65	init
2	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kthreadd
3	root	20	0	0	0	0	S	0.0	0.0	0:00.04	ksoftirqd/0
5	root	20	0	0	0	0	S	0.0	0.0	0:00.36	kworker/u:0

```
$ sudo kill 1
$ sudo kill 15 1
$ sudo kill 15 2
$ sudo kill 15 20
$
```

```
> (panji) 33.33.32.212
```

hal ini tidak akan bisa dilakukan karena pada pid 20, 1 ataupun 2 karena pada pid tersebut dijalankan oleh user root, yang berarti proses tersebut dijalankan oleh sistem dan dibutuhkan oleh sistem, jadi setelah berhenti saat itu juga proses akan kembali berjalan lagi.

10. Ubah port number pada : [Point 15]
- Ssh server menjadi (2 digit NRP terakhir)
 - Web server menjadi (2 digit NRP terakhir +2)
 - Database server menjadi (2 digit NRP terakhir +3)

```
GNU nano 2.2.6      File: /etc/ssh/sshd_config      Modified
# Package generated configuration file
# See the sshd_config(5) manpage for details

# What ports, IPs and protocols we listen for
Port 25
# Use these options to restrict which interfaces/protocols sshd will bind to
#ListenAddress ::
```

setelah diganti anda bisa merestart virtual machine atau merestart service dari sshd.
Jika ssh diakses maka anda harus menambahkan opsi -p<port_yang_anda_masukkan>

```
budosen@budosen-pc:~$ ssh budosen@33.33.32.212 -p25
budosen@33.33.32.212's password:
Welcome to Ubuntu 12.04.1 LTS (GNU/Linux 3.2.0-29-generic-pae i686)

* Documentation:  https://help.ubuntu.com/

System information as of Sun Dec  9 18:01:29 PST 2018

System load:  0.14           Processes:            75
Usage of /:   11.9% of 9.04GB Users logged in:             0
Memory usage: 13%           IP address for eth0:  33.33.32.212
Swap usage:   0%            IP address for virbr0: 192.168.122.1

Graph this data and manage this system at https://landscape.canonical.com/

New release '14.04.5 LTS' available.
Run 'do-release-upgrade' to upgrade to it.

Last login: Sun Dec  9 17:59:54 2018 from 33.33.32.104
budosen@budosen:~$
```

```
GNU nano 2.2.6      File: /etc/apache2/sites-available/default
<VirtualHost *:250>
    ServerAdmin webmaster@localhost

    DocumentRoot /var/www
    <Directory />
        Options FollowSymLinks
        AllowOverride None
    </Directory>
    <Directory /var/www/>
        Options Indexes FollowSymLinks MultiViews
        AllowOverride None
        Order allow,deny
        allow from all
    </Directory>

    ScriptAlias /cgi-bin/ /usr/lib/cgi-bin/
```



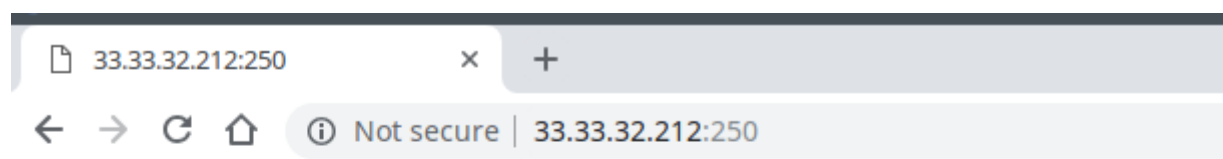
```
GNU nano 2.2.6      File: /etc/apache2/ports.conf      Modified
# If you just change the port or add more ports here, you will likely also
# have to change the VirtualHost statement in
# /etc/apache2/sites-enabled/000-default
# This is also true if you have upgraded from before 2.2.9-3 (i.e. from
# Debian etch). See /usr/share/doc/apache2.2-common/NEWS.Debian.gz and
# README.Debian.gz

NameVirtualHost *:250
Listen 250

<IfModule mod_ssl.c>
    # If you add NameVirtualHost *:443 here, you will also have to change
    # the VirtualHost statement in /etc/apache2/sites-available/default-ssl
    # to <VirtualHost *:443>
    # Server Name Indication for SSL named virtual hosts is currently not
    # supported by MSIE on Windows XP.
    Listen 443
</IfModule>

<IfModule mod_gnutls.c>
    Listen 443
[ Read 23 lines ]
^G Get Help  ^O WriteOut  ^R Read File  ^Y Prev Page  ^K Cut Text   ^C Cur Pos
^X Exit      ^J Justify   ^W Where Is   ^V Next Page  ^U UnCut Text ^T To Spell
> (budosen) 33.33.32.212
```

```
budosen@budosen:~$ sudo service apache2 restart
* Restarting web server apache2
apache2: Could not reliably determine the server's fully qualified domain name, using
127.0.1.1 for ServerName
apache2: Could not reliably determine the server's fully qualified domain name, using
127.0.1.1 for ServerName
[ OK ]
budosen@budosen:~$
```



It works!

This is the default web page for this server.

The web server software is running but no content has been added, yet.

```
#
# The MySQL database server configuration file.
#
# You can copy this to one of:
# - "/etc/mysql/my.cnf" to set global options,
# - "~/.my.cnf" to set user-specific options.
#
# One can use all long options that the program supports.
# Run program with --help to get a list of available options and with
# --print-defaults to see which it would actually understand and use.
#
# For explanations see
# http://dev.mysql.com/doc/mysql/en/server-system-variables.html
#
# This will be passed to all mysql clients
# It has been reported that passwords should be enclosed with ticks/quotes
# especially if they contain "#" chars...
# Remember to edit /etc/mysql/debian.cnf when changing the socket location.
[client]
port                = 26
socket              = /var/run/mysqld/mysqld.sock
```