

## Laporan Tugas 1

### 1. Command dasar linux

#### a. pwd

pwd(parent working directory) digunakan untuk mengetahui direktori user yang digunakan saat ini

```
valentino@valentino-VirtualBox:~$ pwd
/home/valentino
```

#### b. ls

digunakan untuk mengetahui isi direktori

```
valentino@valentino-VirtualBox:~$ ls
Desktop Documents Downloads Music Pictures Public Templates Videos
valentino@valentino-VirtualBox:~$ ls -l
total 32
drwxr-xr-x 2 valentino valentino 4096 Sep 4 13:36 Desktop
drwxr-xr-x 2 valentino valentino 4096 Sep 4 13:36 documents
drwxr-xr-x 2 valentino valentino 4096 Sep 4 13:36 downloads
drwxr-xr-x 2 valentino valentino 4096 Sep 4 13:36 Music
drwxr-xr-x 2 valentino valentino 4096 Sep 4 13:36 Pictures
drwxr-xr-x 2 valentino valentino 4096 Sep 4 13:36 Public
drwxr-xr-x 2 valentino valentino 4096 Sep 4 13:36 Templates
drwxr-xr-x 2 valentino valentino 4096 Sep 4 13:36 Videos
```

#### c. cd

digunakan untuk berpindah dari satu direktori ke direktori lainnya

```
valentino@valentino-VirtualBox:~$ cd Music
valentino@valentino-VirtualBox:~/Music$ cd
```

#### d. cat

digunakan untuk mengetahui isi suatu berkas

```
valentino@valentino-VirtualBox:~/sisop$ cat ct.txt
uahwduhauuhdauhwda
valentino@valentino-VirtualBox:~/sisop$ cat catatan.txt
haloooooo^__^
```

#### e. nano

berfungsi sebagai teks editor

```
File Edit View Search Terminal Help
GNU nano 6.2
contoh
```

The screenshot shows a terminal window with the nano text editor open. The title bar says "File Edit View Search Terminal Help" and "GNU nano 6.2". The main area contains the word "contoh". The bottom status bar shows system information like battery level, signal strength, and the time "20:46". The toolbar at the bottom includes icons for Help, Exit, Write Out, Read File, Where Is, Replace, Cut, Paste, Execute, Justify, Location, Go To Line, Undo, Redo, Set Mark, To Bracket, Where Was, Previous, Next, Back, Forward, Prev Word, Next Word, Home, and End.

## f. mkdir

berfungsi untuk membuat direktori/folder baru

```
File Edit View Search Terminal Tabs Help
valentino@valentino-VirtualBox:~$ mkdir infolder
valentino@valentino-VirtualBox:~$ ls
catatan.txt  Documents  infolder  Pictures  Templates
Desktop      Downloads  Music     Public    Videos
valentino@valentino-VirtualBox:~$
```

## g. rm

berfungsi untuk menghapus berkas

```
File Edit View Search Terminal Help
valentino@valentino-VirtualBox:~/sisop$ ls
contoh.txt pindah Tugas
valentino@valentino-VirtualBox:~/sisop$ rm contoh.txt
valentino@valentino-VirtualBox:~/sisop$ ls
pindah Tugas
valentino@valentino-VirtualBox:~/sisop$
```

## h. rmdir

berfungsi untuk menghapus sebuah direktori, jika direktori yang ingin dihapus tidak kosong maka tinggal ditambahkan rmdir -rf nama\_direktori  
r itu recursive dan f itu force

```
File Edit View Search Terminal Help
valentino@valentino-VirtualBox:~/sisop$ ls
contoh pindah Tugas
valentino@valentino-VirtualBox:~/sisop$ rmdir contoh
valentino@valentino-VirtualBox:~/sisop$ ls
pindah Tugas
valentino@valentino-VirtualBox:~/sisop$
```

## i. mv

berfungsi untuk memindahkan suatu berkas

```
valentino@valentino-VirtualBox:~$ ls
ct.txt  Documents  Music  Public  Templates
Desktop  Downloads  Pictures  sisop  Videos
valentino@valentino-VirtualBox:~$ mv ct.txt sisop
valentino@valentino-VirtualBox:~$ ls
Desktop  Downloads  Pictures  sisop  Videos
Documents  Music  Public  Templates
valentino@valentino-VirtualBox:~$ cd sisop
valentino@valentino-VirtualBox:~/sisop$ ls
catatan.txt  ct.txt  pindah
```

## j. cp

berfungsi untuk menyalin berkas

```
valentino@valentino-VirtualBox:~/sisop$ ls
catatan.txt  pindah
valentino@valentino-VirtualBox:~/sisop$ cp catatan.txt pindah
valentino@valentino-VirtualBox:~/sisop$ ls
catatan.txt  pindah
valentino@valentino-VirtualBox:~/sisop$ cd pindah
valentino@valentino-VirtualBox:~/sisop/pindah$ ls
catatan.txt
```

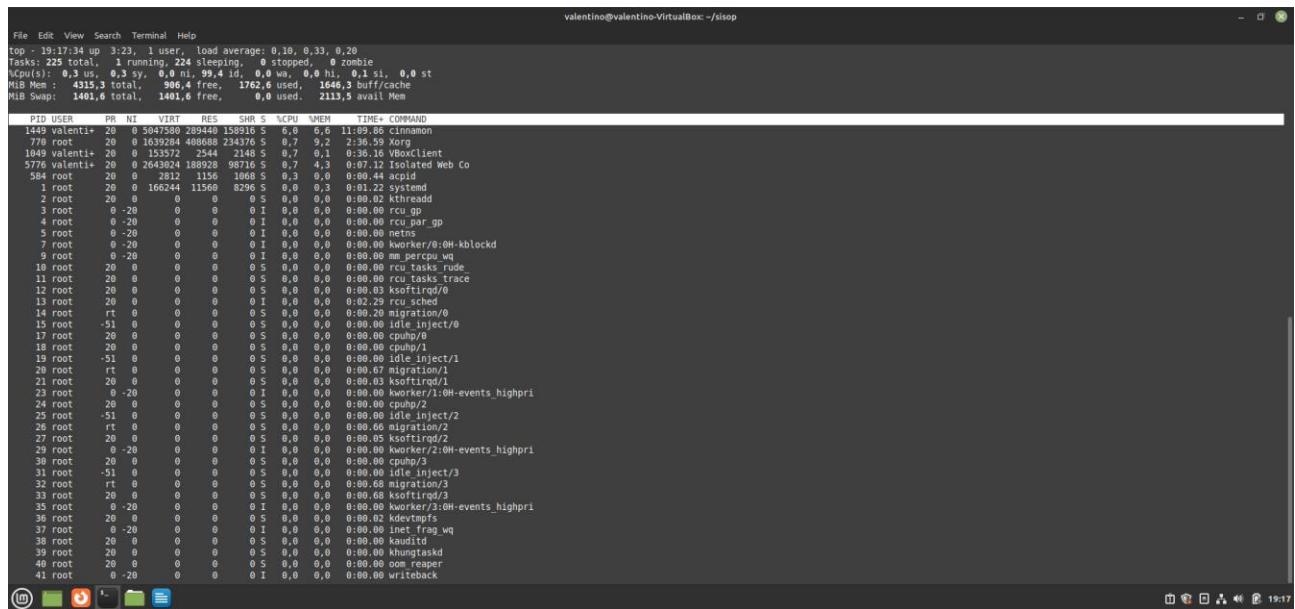
## k. df

berfungsi untuk melihat penggunaan disk space sistem

```
valentino@valentino-VirtualBox:~/sisop$ df
Filesystem      1K-blocks    Used Available Use% Mounted on
tmpfs            1072260    1132   1071128  1% /run
/dev/sda3        30267332  8795776  19908728 31% /
tmpfs            5361280      0   5361280  0% /dev/shm
tmpfs              5120       4    5116  1% /run/lock
/dev/sda2        524252    5364   518888  2% /boot/efi
tmpfs            1072256    104   1072152  1% /run/user/1000
/dev/sr0           62390   62390         0 100% /media/valentino/VBox_GAs 6.1.38
```

## l. top

berfungsi untuk menampilkan daftar proses yang sedang berlangsung dan seberapa banyak ruang CPU yang digunakan oleh tiap proses tersebut.

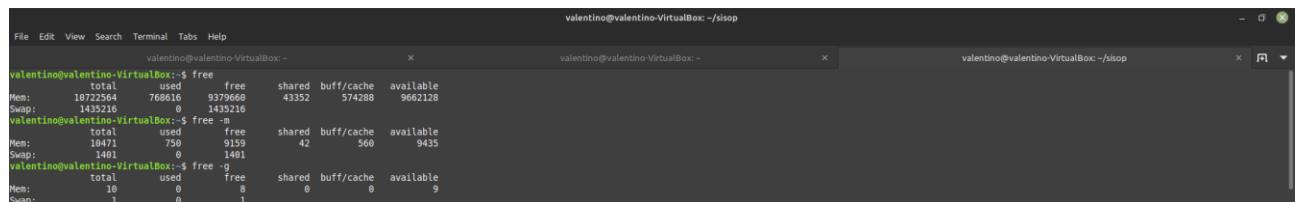


```
valentino@valentino-VirtualBox:~/sisop
File Edit View Search Terminal Help
top - 19:17:34 up 3:23, 1 user,  load average: 0.10, 0.33, 0.20
Tasks: 225 total, 1 running, 224 sleeping, 0 stopped, 0 stopped
CPU(s): 0.3 us, 0.3 sy, 0.0 ni, 99.4 id, 0.0 wa, 0.0 hi, 0.1 sl, 0.0 st
Mem: 4315.3 total, 906.4 free, 1762.6 used, 1646.3 buff/cache
Swap: 1401.6 total, 1401.6 free, 0.0 used 2113.5 avail Mem

PID USER PR NI VIRT RES SHR S %CPU TIME COMMAND
1449 valentino+ 20 0 5647580 285440 158916 S 6.6 11:09:58 cinnamon
770 root 20 0 1639284 408680 234376 S 0.7 9.2 2:36:59 Xorg
1049 valentino+ 20 0 153572 2544 2148 S 0.7 0.1 0:36:16 VBoxClient
5770 valentino+ 20 0 264088 18828 7472 S 0.7 0.3 0:00:00 WebCo
284 valentino+ 20 0 2812 1156 1068 S 0.3 0.0 0:00:44 arpid
1 root 20 0 166244 11560 8296 S 0.0 0.3 0:01:22 systemd
2 root 20 0 0 0 0 S 0.0 0.0 0:00:00 kthreadd
3 root 0 -20 0 0 0 I 0.0 0.0 0:00:00 rcu_gp
4 root 0 -20 0 0 0 I 0.0 0:00:00 rcu_bh
5 root 0 -20 0 0 0 I 0.0 0:00:00 netns
7 root 0 -20 0 0 0 I 0.0 0:00:00 kworker/r:0:H-kblockd
9 root 0 -20 0 0 0 I 0.0 0.0 0:00:00 mm_percpu_wq
10 root 20 0 0 0 0 S 0.0 0:00:00 rcu_tasks_rude_
11 root 20 0 0 0 0 S 0.0 0:00:00 rcu_tasks_trace_
12 root 20 0 0 0 0 S 0.0 0:00:00 rcu_tasks_fair_
13 root 20 0 0 0 0 I 0.0 0.0 0:02:29 rcu_sched
14 root rt 0 0 0 S 0.0 0.0 0:00:20 migration/0
15 root -51 0 0 0 0 S 0.0 0.0 0:00:00 idle_inject/0
17 root 20 0 0 0 0 S 0.0 0.0 0:00:00 cpuhp/B
18 root 20 0 0 0 0 S 0.0 0.0 0:00:00 cpuhp/I
19 root -51 0 0 0 0 S 0.0 0.0 0:00:00 idle_inject/1
20 root rt 0 0 0 0 S 0.0 0.0 0:00:07 migration/1
21 root 20 0 0 0 0 S 0.0 0.0 0:00:03 ksoftirqd/1
23 root 0 -20 0 0 0 I 0.0 0.0 0:00:00 kworker/r:0H-events_highpri
24 root 20 0 0 0 0 S 0.0 0.0 0:00:00 ksoftirqd/2
25 root -51 0 0 0 0 S 0.0 0.0 0:00:00 idle_inject/2
26 root rt 0 0 0 0 S 0.0 0.0 0:00:00 migration/2
27 root 20 0 0 0 0 S 0.0 0.0 0:00:05 ksoftirqd/2
29 root 0 -20 0 0 0 I 0.0 0.0 0:00:00 kworker/r:2H-events_highpri
30 root 20 0 0 0 0 S 0.0 0.0 0:00:00 cpuhp/B
31 root -51 0 0 0 0 S 0.0 0.0 0:00:00 idle_inject/3
32 root rt 0 0 0 0 S 0.0 0.0 0:00:08 migration/3
33 root 20 0 0 0 0 S 0.0 0.0 0:00:08 ksoftirqd/3
35 root 0 -20 0 0 0 I 0.0 0.0 0:00:00 kworker/r:3H-events_highpri
36 root 20 0 0 0 0 S 0.0 0.0 0:00:02udevpts
37 root 0 -20 0 0 0 S 0.0 0.0 0:00:00 idle_inject/4_WQ
38 root 20 0 0 0 0 S 0.0 0.0 0:00:00 kaudit/1
39 root 20 0 0 0 0 S 0.0 0.0 0:00:00 khungtasksd
40 root 20 0 0 0 0 S 0.0 0.0 0:00:00 oom_reaper
41 root 0 -20 0 0 0 I 0.0 0.0 0:00:00 writeback
```

## m. free

berfungsi untuk melihat ram yang terpakai dan yang tidak terpakai



```
valentino@valentino-VirtualBox:~/sisop
File Edit View Search Tabs Help
valentino@valentino-VirtualBox:~ - x valentino@valentino-VirtualBox:~ - x valentino@valentino-VirtualBox:~ - x
valentino@valentino-VirtualBox:~$ free
              total        used        free      shared  buff/cache available
Mem:       10729.44    768610   9379660   43352      574288   9662128
Swap:      1435216          0   1435216
valentino@valentino-VirtualBox:~$ free -m
              total        used        free      shared  buff/cache available
Mem:       10471       750      9159        42       560      9435
Swap:      1401          0      1401
valentino@valentino-VirtualBox:~$ free -t
              total        used        free      shared  buff/cache available
Mem:          10          0          8          0          0          9
Swap:          1          0          1
```

## n. python

berfungsi untuk menjalankan python interpreter

```
valentino@valentino-VirtualBox:~$ python3
Python 3.10.4 (main, Jun 29 2022, 12:14:53) [GCC 11.2.0] on linux
Type "help", "copyright", "credits" or "license" for more information.
>>> print("Hello world!")
Hello world!
>>> exit()
```

## o. version

untuk mengetahui versi sebuah perangkat lunak

```
valentino@valentino-VirtualBox:~$ python3 --version
```

```
Python 3.10.4
```

## p. whereis

berfungsi untuk mengetahui direktori berkas-berkas perangkat lunak

```
valentino@valentino-VirtualBox:~$ whereis python
python3: /usr/bin/python3 /usr/lib/python3 /etc/python3 /usr/share/python3 /usr/share/man/man1/python3.1.gz
```

## q. which

untuk mengetahui direktori utama suatu perangkat lunak

```
valentino@valentino-VirtualBox:~$ which python3
```

```
/usr/bin/python3
```

## r. whatis

untuk mengetahui definisi suatu perangkat lunak

```
valentino@valentino-VirtualBox:~$ whatis python3
```

```
python3 (1) - an interpreted, interactive, object-oriented program...
```

## s. locate & find

digunakan untuk mencari berkas. Tetapi, locate lebih cepat dibandingkan dengan find

```
valentino@valentino-VirtualBox:~$ find ~/ -name Tugas1.py
/home/valentino/sisop/Tugas/Tugas1.py
valentino@valentino-VirtualBox:~$ locate Tugas1.py
/home/valentino/sisop/Tugas/Tugas1.py
```

## t. ping

untuk mengecek koneksi internet

```
valentino@valentino-VirtualBox:~$ ping riotgames.net
PING riotgames.net (72.52.10.14) 56(84) bytes of data.
64 bytes from a72:52:10:14.deploy.static.akamaitechnologies.com (72.52.10.14): icmp_seq=1 ttl=242 time=73.1 ms
64 bytes from a72:52:10:14.deploy.static.akamaitechnologies.com (72.52.10.14): icmp_seq=2 ttl=242 time=70.5 ms
64 bytes from a72:52:10:14.deploy.static.akamaitechnologies.com (72.52.10.14): icmp_seq=3 ttl=242 time=80.0 ms
64 bytes from a72:52:10:14.deploy.static.akamaitechnologies.com (72.52.10.14): icmp_seq=4 ttl=242 time=77.4 ms
64 bytes from a72:52:10:14.deploy.static.akamaitechnologies.com (72.52.10.14): icmp_seq=5 ttl=242 time=70.5 ms
...
--- riotgames.net ping statistics ---
5 packets transmitted, 5 received, 0% packet loss, time 4013ms
rtt min/avg/max/mdev = 79.464/75.893/87.984/6.552 ms
```

penjelasan tugas bash

a. membuat command “nano Tugas1.sh”

```
File Edit View Search Terminal Help
valentino@valentino-VirtualBox:~/sisop/Tugas$ nano Tugas1.sh
```

c.

lalu, tekan **ctrl+x→y→enter**

d. lalu, jika ingin muncul teks tersebut pada terminal tinggal menuliskan command “bash Tugas1.sh”

```
valentino@valentino-VirtualBox:~/sisop/Tugas$ bash Tugas1.sh
Halo dunia!
Ini adalah skrip Bash pertamaku di Linux!
```

3. penjelasan tugas python

a. membuat command “nano Tugas1.py”

```
valentino@valentino-VirtualBox:~/sisop/Tugas$ nano Tugas1.py
valentino@valentino-VirtualBox:~/sisop/Tugas$
```

b. lalu, membuat skrip yang sudah ditentukan

```
File Edit View Search Terminal Help
GNU nano 6.2
print("-----")
print("Tugas 1 SISOP Kelas-A")
print("-----")
print("Nama: Valentino Belardo")
print("NPM: 21083010109")
print("-----")
print("notes:")
print("-----")
print("Halo dunia!")
print("Ini adalah skrip Bash pertamaku di Linux")
```

c. lalu, tekan **ctrl+x→y→enter**

d. lalu, jika ingin muncul teks tersebut pada terminal tinggal menuliskan command “python3 Tugas1.py”

```
valentino@valentino-VirtualBox:~/sisop/Tugas$ python3 Tugas1.py
-----
Tugas 1 SISOP Kelas-A
-----
Nama: Valentino Belardo
NPM: 21083010109
-----
notes:
-----
Halo dunia!
Ini adalah skrip Bash pertamaku di Linux
```