

Nama : Reza Sadiya Purwadwika

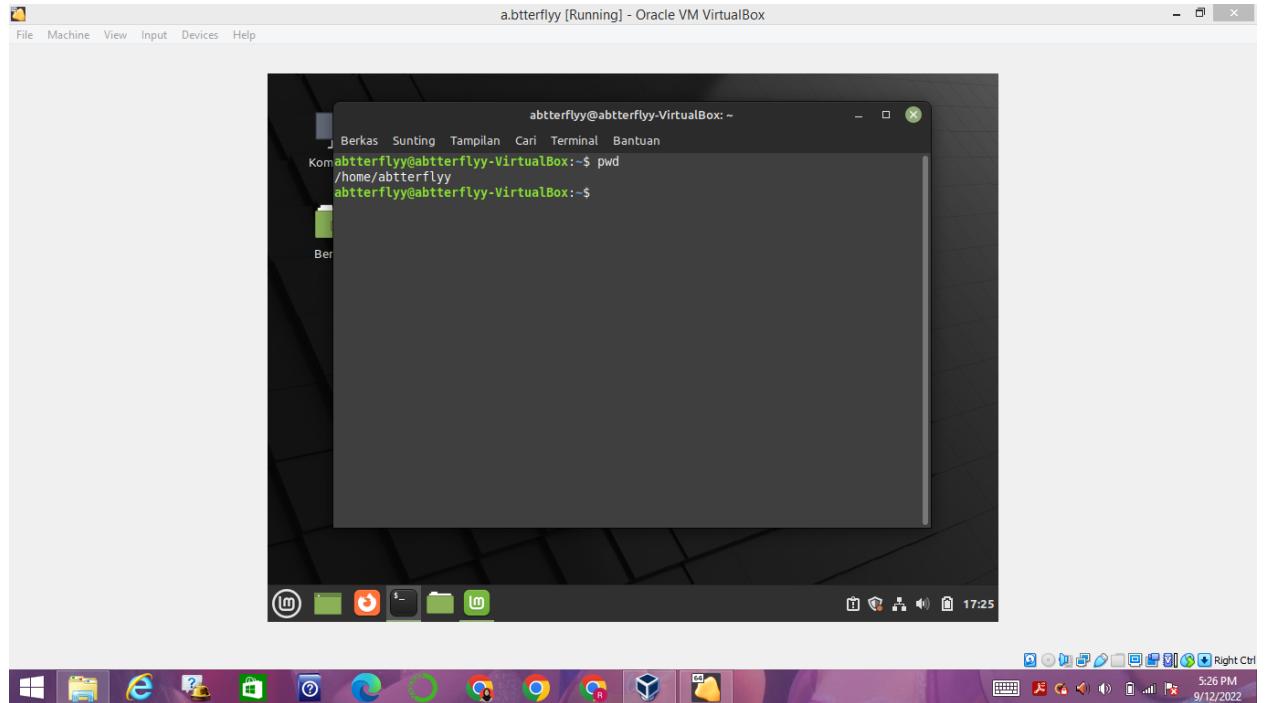
NPM : 21083010026

Mata Kuliah : Sistem Operasi (A)

DOKUMENTASI BASH DI LINUX

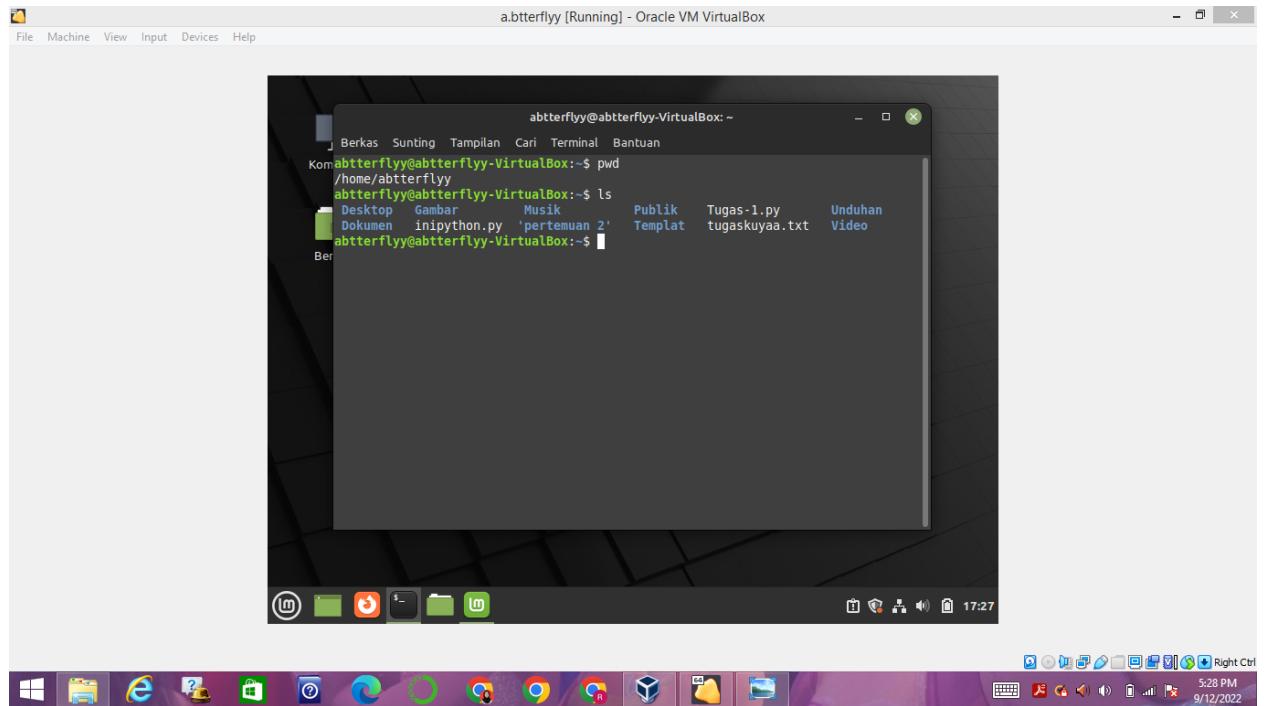
1. pwd (parent working directory)

Digunakan untuk menampilkan direktori yang user akses/gunakan.



2. ls

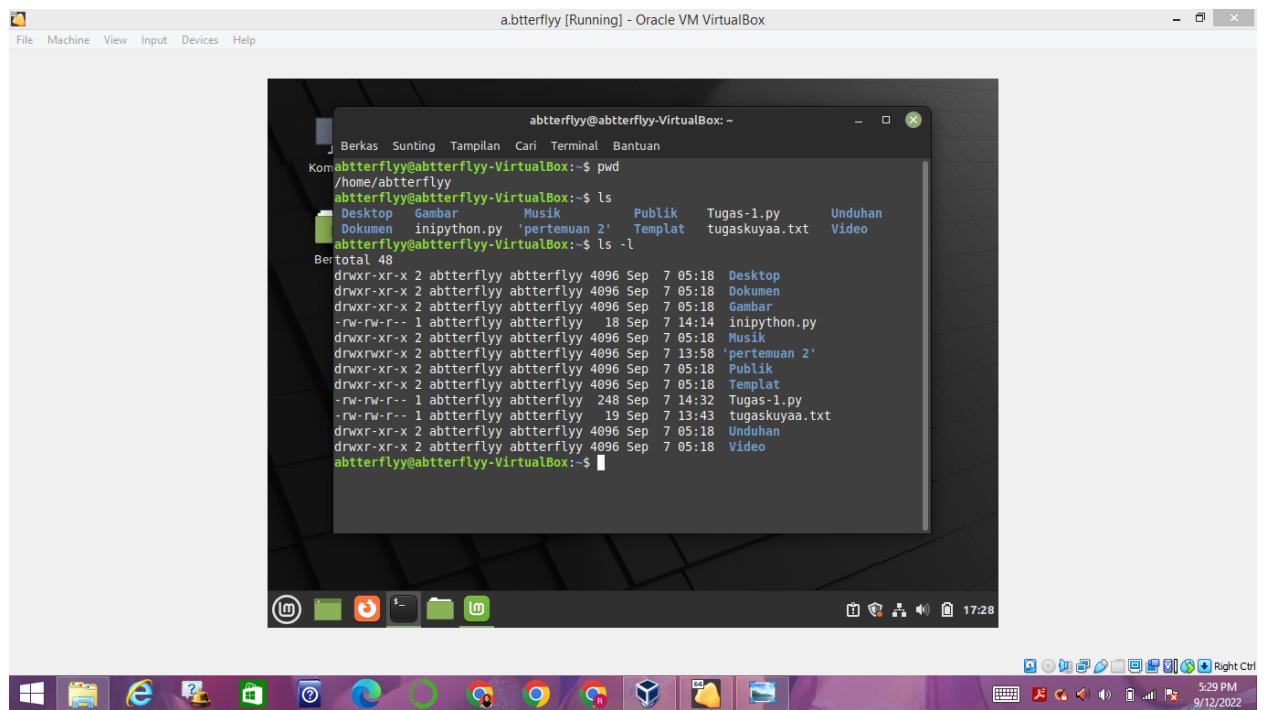
Digunakan untuk melihat isi dari sebuah direktori yang dituju.



```
abtterfly@abtterfly-VirtualBox:~$ pwd
/home/abtterfly
abtterfly@abtterfly-VirtualBox:~$ ls
Desktop  Gambar  Musik  Publik  Tugas-1.py  Unduhan
Dokumen  inipython.py  'pertemuan 2'  Templat  tugaskuyaa.txt  Video
abtterfly@abtterfly-VirtualBox:~$
```

3. ls-l

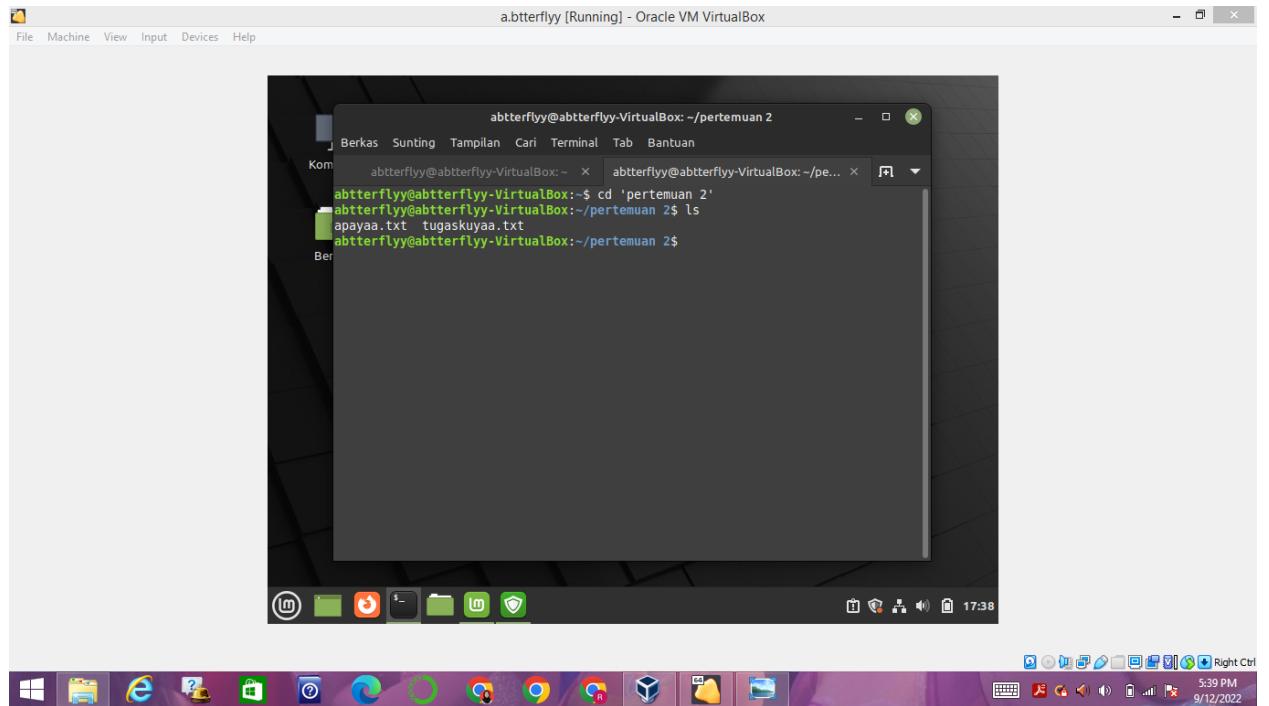
Memiliki fungsi yang sama dengan ls namun ditambahkan -l untuk mengetahui hak akses beserta waktu terakhir dari sebuah berkas/direktori diubah.



```
abtterfly@abtterfly-VirtualBox:~$ pwd
/home/abtterfly
abtterfly@abtterfly-VirtualBox:~$ ls
Desktop  Gambar  Musik  Publik  Tugas-1.py  Unduhan
Dokumen  inipython.py  'pertemuan 2'  Templat  tugaskuyaa.txt  Video
abtterfly@abtterfly-VirtualBox:~$ ls -l
total 48
drwxr-xr-x 2 abtterfly abtterfly 4096 Sep  7 05:18 Desktop
drwxr-xr-x 2 abtterfly abtterfly 4096 Sep  7 05:18 Dokumen
drwxr-xr-x 2 abtterfly abtterfly 4096 Sep  7 05:18 Gambar
-rw-rw-r-- 1 abtterfly abtterfly  18 Sep  7 14:14 inipython.py
drwxr-xr-x 2 abtterfly abtterfly 4096 Sep  7 05:18 Musik
drwxrwxr-x 2 abtterfly abtterfly 4096 Sep  7 13:58 'pertemuan 2'
drwxr-xr-x 2 abtterfly abtterfly 4096 Sep  7 05:18 Publik
drwxr-xr-x 2 abtterfly abtterfly 4096 Sep  7 05:18 Templat
-rw-rw-r-- 1 abtterfly abtterfly 248 Sep  7 14:32 Tugas-1.py
-rw-rw-r-- 1 abtterfly abtterfly 19 Sep  7 13:43 tugaskuyaa.txt
drwxr-xr-x 2 abtterfly abtterfly 4096 Sep  7 05:18 Unduhan
drwxr-xr-x 2 abtterfly abtterfly 4096 Sep  7 05:18 Video
abtterfly@abtterfly-VirtualBox:~$
```

4. cd (change directory)

Digunakan untuk berpindah dari direktori satu ke direktori lain.

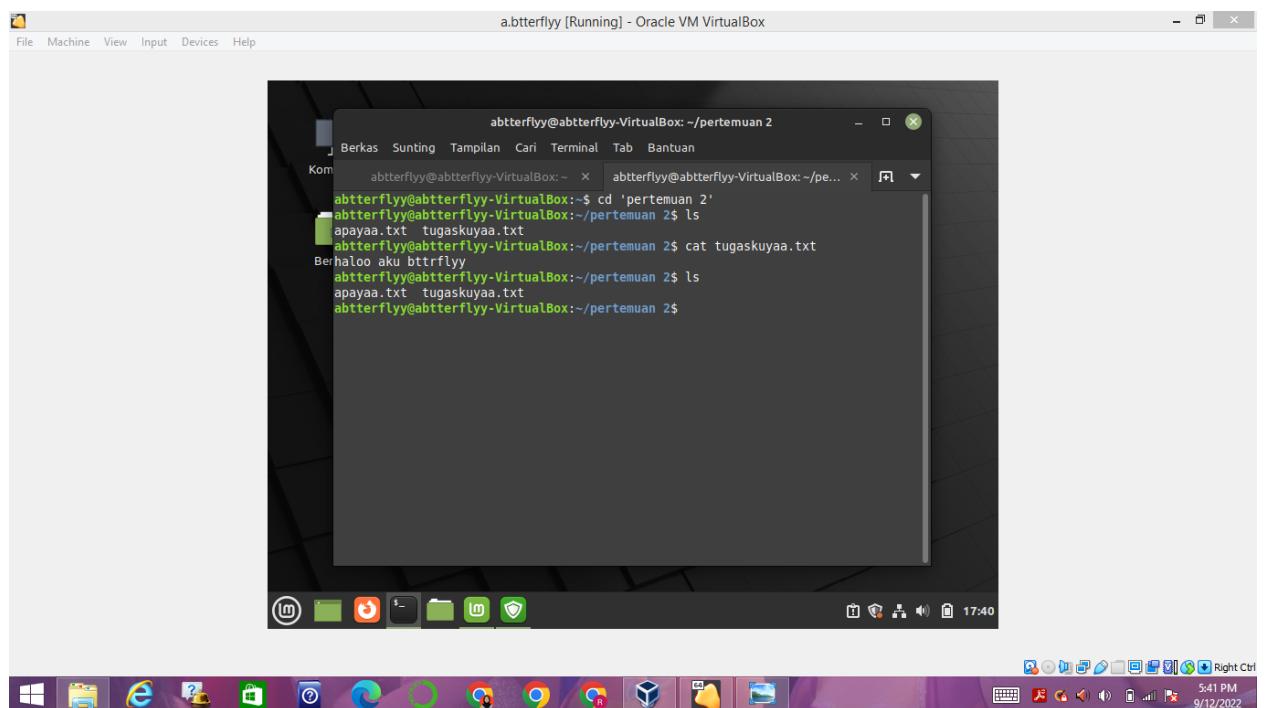


A screenshot of a Linux desktop environment running in a virtual machine. The desktop has a purple and black theme. A terminal window titled 'abtterflyy [Running] - Oracle VM VirtualBox' is open, showing the command line interface. The terminal shows the user navigating to the directory '/pertemuan 2' and listing files. The desktop bar at the bottom shows various application icons and the system tray.

```
abtterflyy@abtterflyy-VirtualBox: ~/pertemuan 2
Berkas Sunting Tampilan Cari Terminal Tab Bantuan
Komputer abtterflyy@abtterflyy-VirtualBox: ~ abtterflyy@abtterflyy-VirtualBox: ~/pe...
abtterflyy@abtterflyy-VirtualBox:~/pertemuan 2$ cd 'pertemuan 2'
abtterflyy@abtterflyy-VirtualBox:~/pertemuan 2$ ls
apaya.txt tugaskuyaa.txt
abtterflyy@abtterflyy-VirtualBox:~/pertemuan 2$
```

5. cat

Digunakan untuk melihat isi dari suatu berkas yang sudah dibuat.

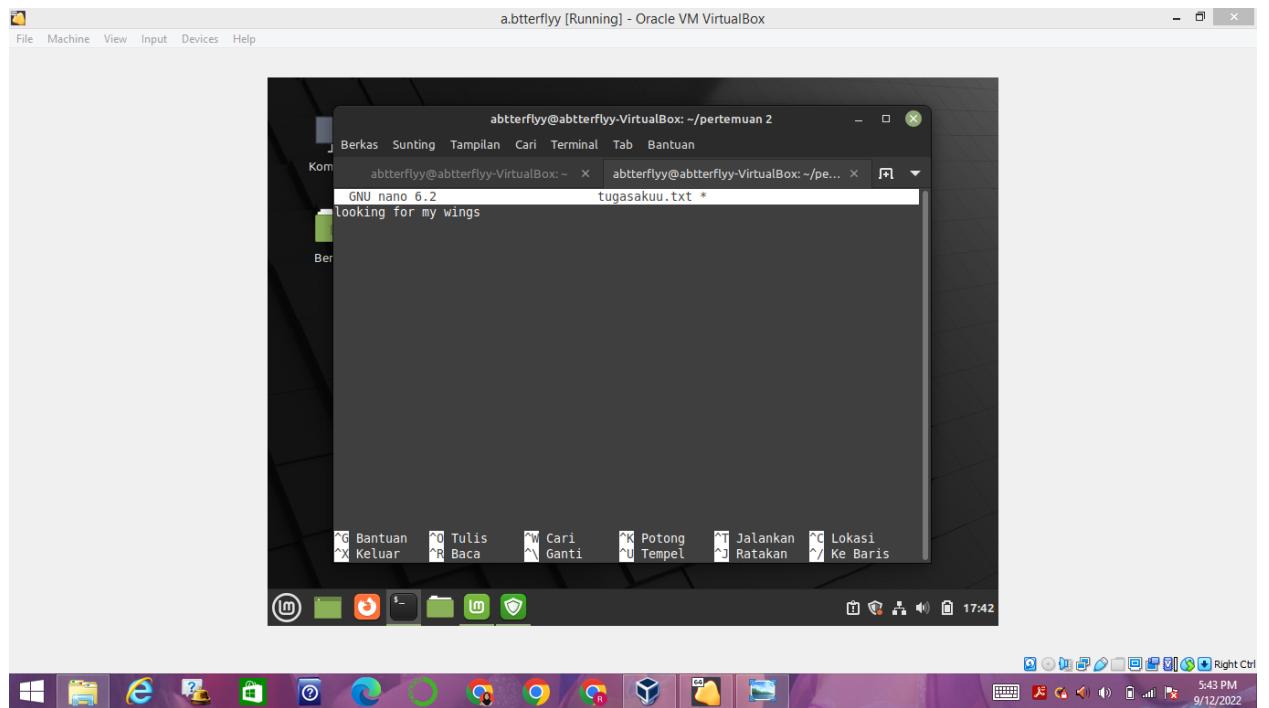


A screenshot of a Linux desktop environment running in a virtual machine. The desktop has a purple and black theme. A terminal window titled 'abtterflyy [Running] - Oracle VM VirtualBox' is open, showing the command line interface. The terminal shows the user navigating to the directory '/pertemuan 2', listing files, and then using the 'cat' command to view the contents of the 'tugaskuyaa.txt' file. The desktop bar at the bottom shows various application icons and the system tray.

```
abtterflyy@abtterflyy-VirtualBox: ~ abtterflyy@abtterflyy-VirtualBox: ~/pe...
abtterflyy@abtterflyy-VirtualBox:~/pertemuan 2$ cd 'pertemuan 2'
abtterflyy@abtterflyy-VirtualBox:~/pertemuan 2$ ls
apaya.txt tugaskuyaa.txt
abtterflyy@abtterflyy-VirtualBox:~/pertemuan 2$ cat tugaskuyaa.txt
Berhaloo aku btrfly
abtterflyy@abtterflyy-VirtualBox:~/pertemuan 2$ ls
apaya.txt tugaskuyaa.txt
abtterflyy@abtterflyy-VirtualBox:~/pertemuan 2$
```

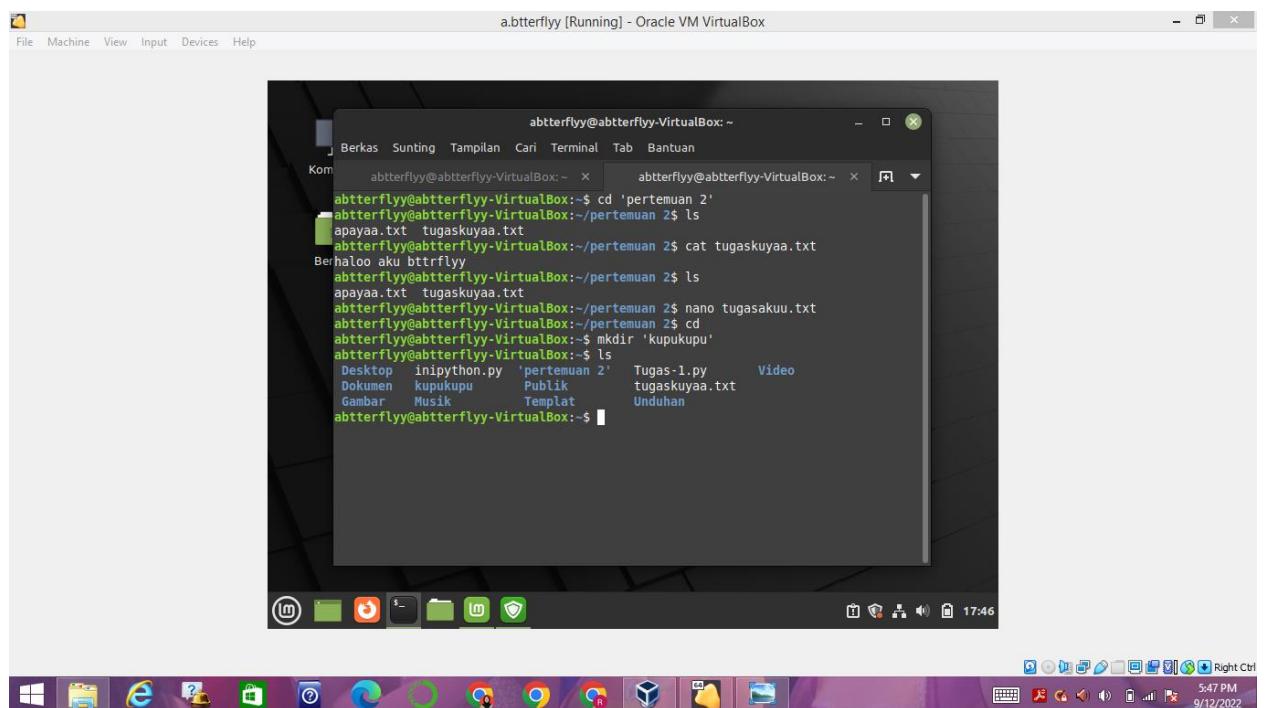
6. nano

Digunakan untuk editor teks yang memiliki fitur yang tidak terbatas.



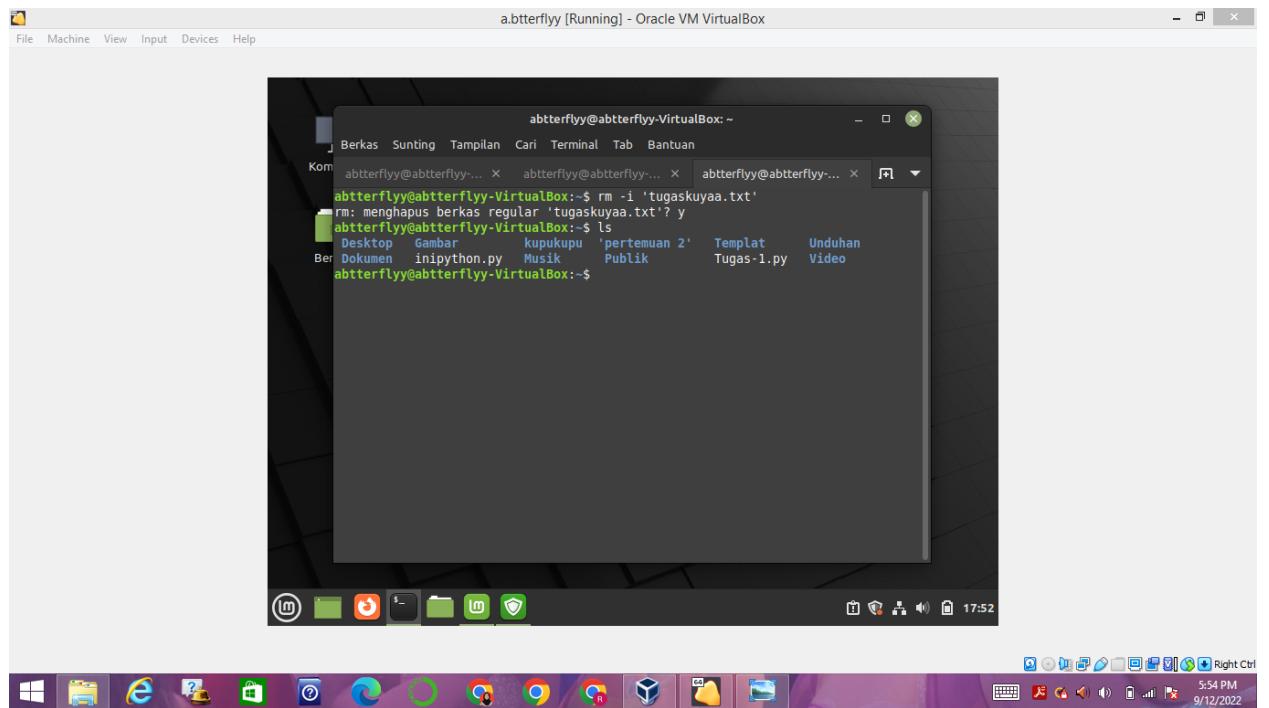
7. mkdir

Digunakan untuk membuat direktori/folder baru.



8. rm

Digunakan untuk menghapus sebuah berkas.



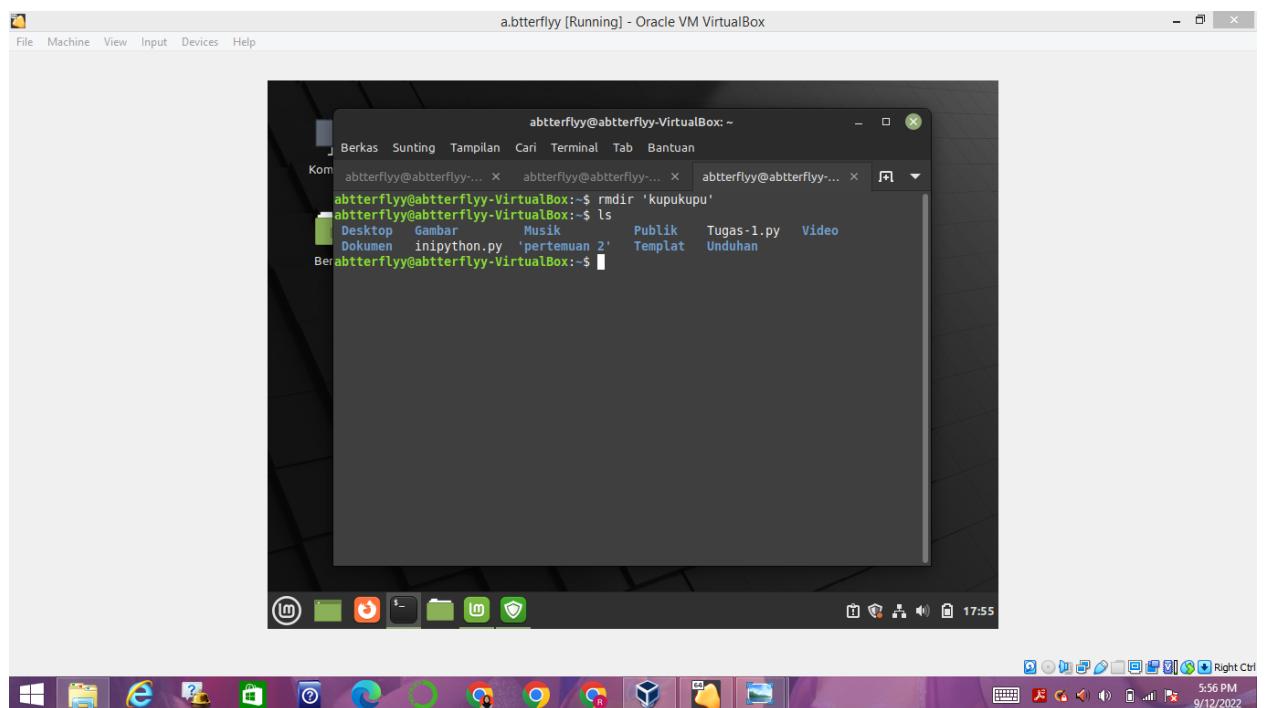
The screenshot shows a Linux desktop environment running in a VirtualBox window titled "a.betterfly [Running] - Oracle VM VirtualBox". A terminal window is open with the following session:

```
abtterfly@abtterfly-VirtualBox:~$ rm -i 'tugaskuyaa.txt'
rm: menghapus berkas regular 'tugaskuyaa.txt'? y
abtterfly@abtterfly-VirtualBox:~$ ls
Desktop  Gambar  kupukupu 'pertemuan 2'  Templat  Unduhan
Ber Dokumen  inipython.py  Musik  Publik  Tugas-1.py  Video
abtterfly@abtterfly-VirtualBox:~$
```

The desktop interface includes a top menu bar with "File", "Machine", "View", "Input", "Devices", and "Help". The taskbar at the bottom shows various application icons, and the system tray indicates the date and time as "5:54 PM 9/12/2022".

9. rmdir

Digunakan untuk menghapus sebuah direktori.



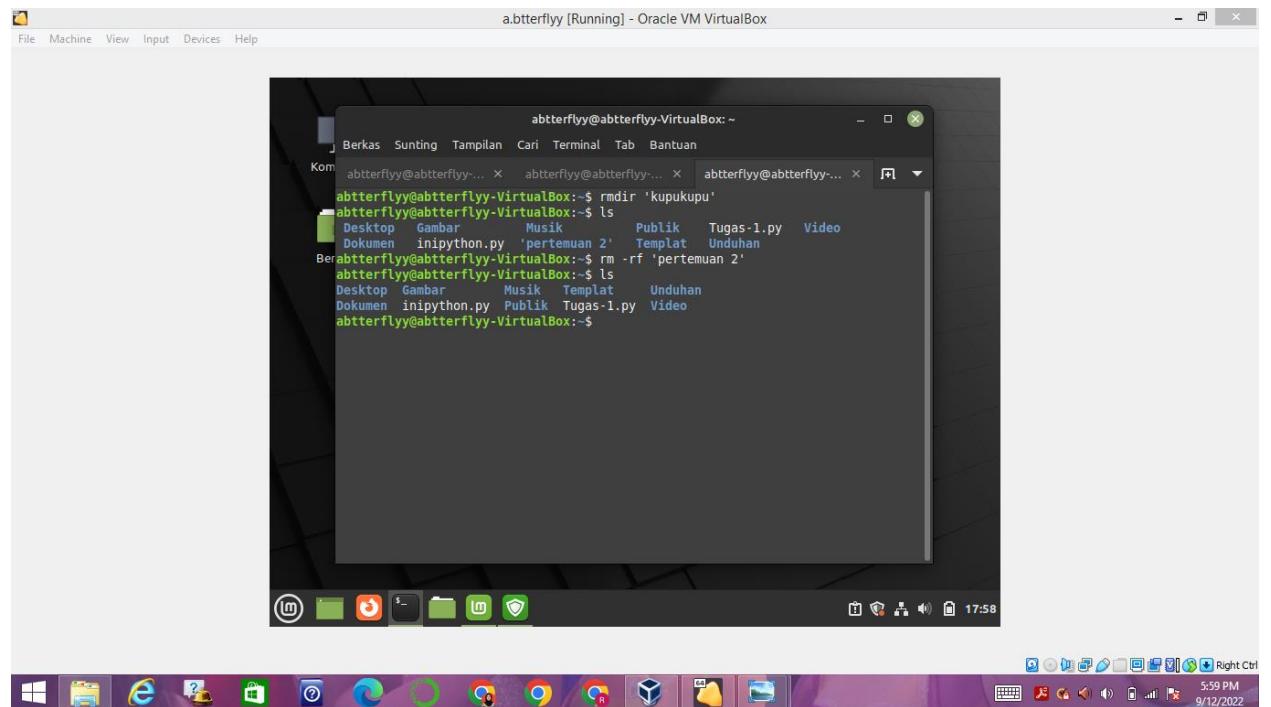
The screenshot shows a Linux desktop environment running in a VirtualBox window titled "a.betterfly [Running] - Oracle VM VirtualBox". A terminal window is open with the following session:

```
abtterfly@abtterfly-VirtualBox:~$ rmdir 'kupukupu'
abtterfly@abtterfly-VirtualBox:~$ ls
Desktop  Gambar  Musik  Publik  Tugas-1.py  Video
Ber Dokumen  inipython.py  'pertemuan 2'  Templat  Unduhan
abtterfly@abtterfly-VirtualBox:~$
```

The desktop interface includes a top menu bar with "File", "Machine", "View", "Input", "Devices", and "Help". The taskbar at the bottom shows various application icons, and the system tray indicates the date and time as "5:56 PM 9/12/2022".

10. rm -rf nama_direktori

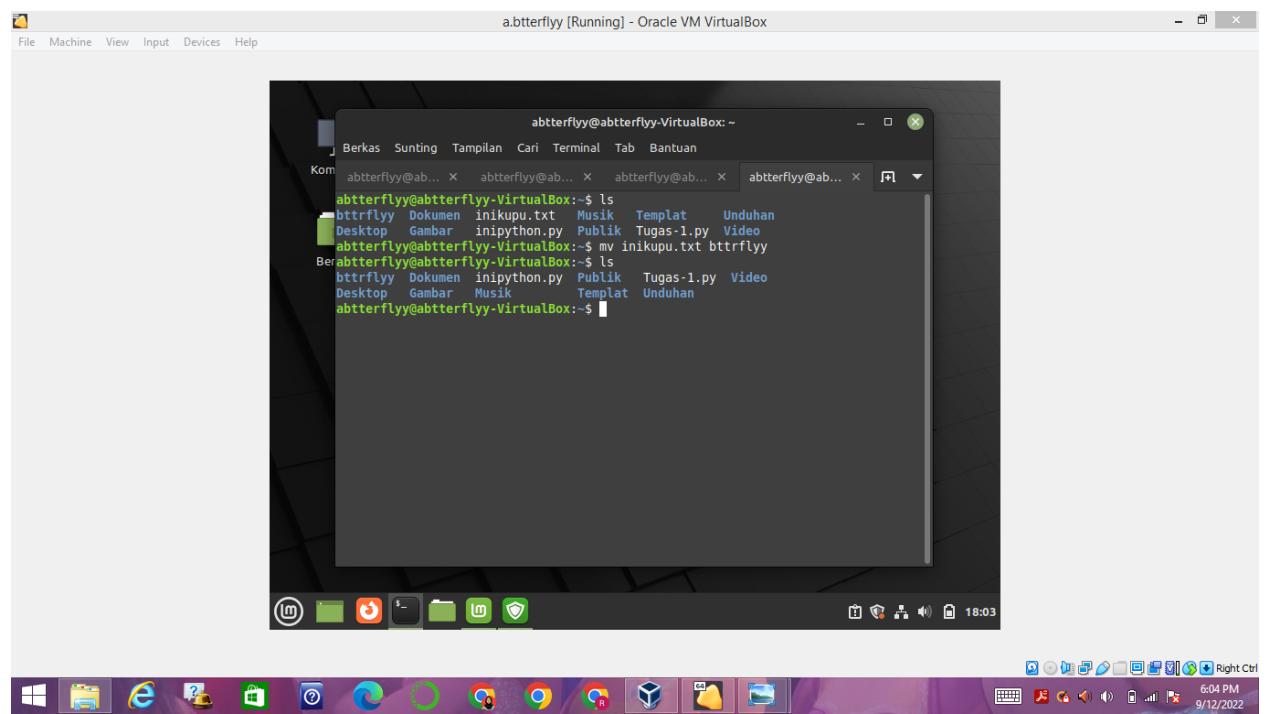
r untuk recursive, f untuk force. Memiliki fungsi yang sama dengan rmdir namun jika direktori tidak kosong maka perintah inilah yang digunakan.



```
abtterflyy@abtterflyy-VirtualBox:~$ rm -rf pertemuan 2
abtterflyy@abtterflyy-VirtualBox:~$ ls
Desktop Gambar Musik Publik Tugas-1.py Video
Dokumen inipython.py 'pertemuan 2' Templat Unduhan
abtterflyy@abtterflyy-VirtualBox:~$ rm -rf 'pertemuan 2'
abtterflyy@abtterflyy-VirtualBox:~$ ls
Desktop Gambar Musik Templat Unduhan
Dokumen inipython.py Publik Tugas-1.py Video
abtterflyy@abtterflyy-VirtualBox:~$
```

11. mv (move)

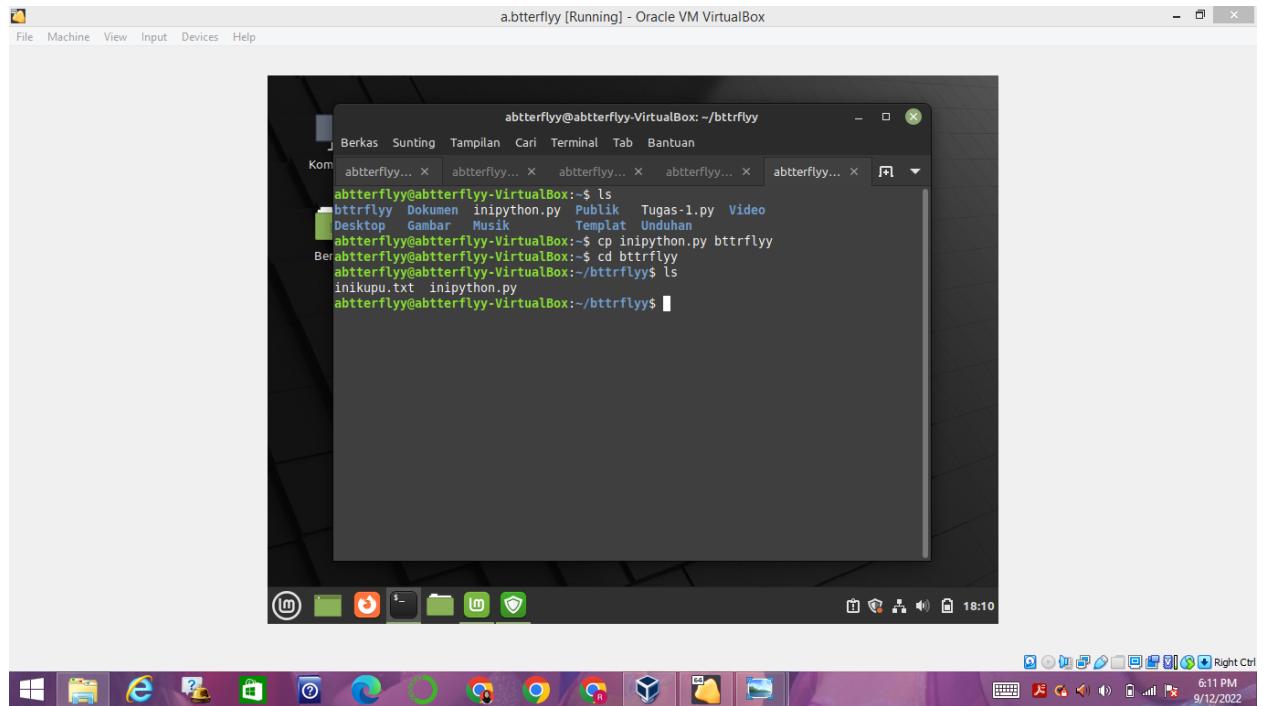
Digunakan untuk memindahkan sebuah berkas



```
abtterflyy@abtterflyy-VirtualBox:~$ ls
bttrfly Dokumen inikupu.txt Musik Templat Unduhan
Desktop Gambar inipython.py Publik Tugas-1.py Video
abtterflyy@abtterflyy-VirtualBox:~$ mv inikupu.txt bttrfly
abtterflyy@abtterflyy-VirtualBox:~$ ls
bttrfly Dokumen inipython.py Publik Tugas-1.py Video
Desktop Gambar Musik Templat Unduhan
abtterflyy@abtterflyy-VirtualBox:~$
```

12. cp (copy-paste)

Digunakan untuk menyalin suatu berkas.



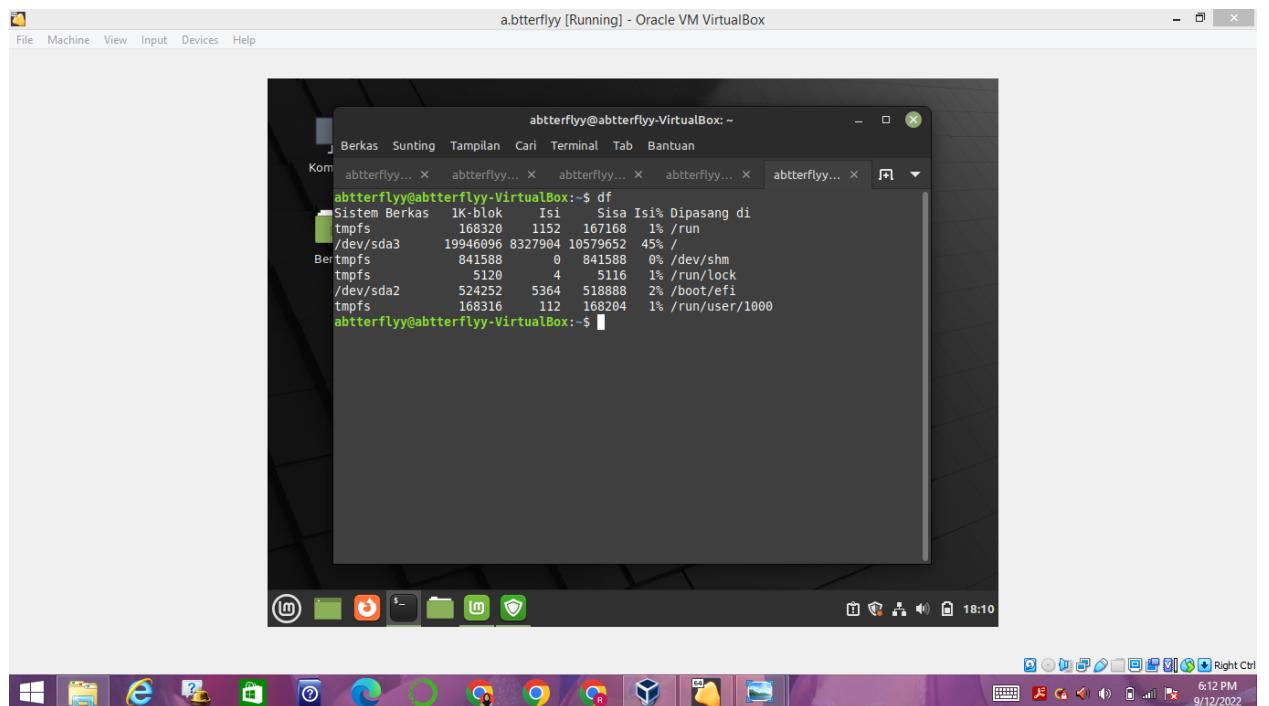
The screenshot shows a Linux desktop environment running in a VirtualBox window titled "a.betterflyy [Running] - Oracle VM VirtualBox". A terminal window is open with the command:

```
abterflyy@abterflyy-VirtualBox:~$ ls  
btrfly Dokumen inipython.py Publik Tugas-1.py Video  
Desktop Gambar Musik Templat Unduhan  
abterflyy@abterflyy-VirtualBox:~$ cp inipython.py btrflyy  
Berabterflyy@abterflyy-VirtualBox:~/btrflyy$ ls  
inikupu.txt inipython.py  
abterflyy@abterflyy-VirtualBox:~/btrflyy$
```

The desktop taskbar at the bottom shows various application icons, and the system tray indicates the date and time as 6:11 PM 9/12/2022.

13. df (disk free)

Digunakan untuk mengetahui ruangan yang tersisa dari partisi yang ter-mount.



The screenshot shows a Linux desktop environment running in a VirtualBox window titled "a.betterflyy [Running] - Oracle VM VirtualBox". A terminal window is open with the command:

```
abterflyy@abterflyy-VirtualBox:~$ df  
Sistem Berkas 1K-blok Isi Sisa Isi% Dipasang di  
tmpfs 168320 1152 167168 1% /run  
/dev/sda3 19946096 8327964 10579652 45% /  
Bertmpfs 841588 0 841588 0% /dev/shm  
tmpfs 5120 4 5116 1% /run/lock  
/dev/sda2 524252 5364 518888 2% /boot/efi  
tmpfs 168316 112 168204 1% /run/user/1000  
abterflyy@abterflyy-VirtualBox:~$
```

The desktop taskbar at the bottom shows various application icons, and the system tray indicates the date and time as 6:12 PM 9/12/2022.

14. top

Digunakan untuk mengetahui informasi mengenai proses-proses dan threads yang sedang dijalankan oleh kernel Linux.

The screenshot shows a Linux desktop environment with a terminal window open in a window manager. The terminal window title is "abtterfly@abtterfly-VirtualBox: ~". The command "top" is running, displaying system load statistics and a list of processes. The desktop taskbar at the bottom has icons for a file manager, terminal, browser, and other system tools. The desktop background is a dark blue gradient.

```
top - 18:11:12 up 53 min, 1 user,  load average: 0,52, 0,25, 0,26
Tasks: 175 total,  1 running, 174 sleeping,   0 stopped,   0 zombie
Cpu(s): 13,3 us,  1,4 sy,  0,0 ni, 85,3 id,  0,0 wa,  0,0 hi,  0,0 si,  0,0 st
Mem:  1643,7 total,  484,7 free,  634,8 used,  524,2 buff/cache
Swap:  923,2 total,  923,2 free,     0 used,  847,4 avail Mem

      PID USER      PR  NI  VIRT    RES    SHR S %CPU %MEM TIME+ COMMAND
 1349 abtterf+  20   0 3593176 213596 131500 9,5 12,7  5:07,35 cinnamon
  749 root      20   0 338920  95044  57680 S 1,3  5,6  1:06,98 Xorg
 1646 abtterf+  20   0 561376 49892  39248 S 1,3  3,0  0:37,73 gnome-t+
 1855 abtterf+  20   0 13080  3968  3376 R 1,3  0,2  0:00,25 top
1230 abtterf+  20   0 301736 25192 19228 S 0,3  1,5  0:01,10 csd-hou+
1847 root      20   0       0     0     0 I 0,3  0,0  0:00,04 kworker+
  1 root      20   0 100656 11372  8100 S 0,0  0,7  0:00,19 systemd
  2 root      20   0       0     0     0 S 0,0  0,0  0:00,02 kthread
  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  0,0  0:00,00 rcu_par+
  5 root      0 -20    0       0     0 I 0,0  0,0  0:00,00 netns
  7 root      0 -20    0       0     0 I 0,0  0,0  0:00,00 kworker+
  9 root      0 -20    0       0     0 I 0,0  0,0  0:00,00 mm_perc+
10 root      20   0       0     0     0 S 0,0  0,0  0:00,00 rcu_task+
11 root      20   0       0     0     0 S 0,0  0,0  0:00,00 rcu_task+
```

15. free

Digunakan untuk mengetahui jumlah RAM yang sudah terpakai dan belum terpakai.

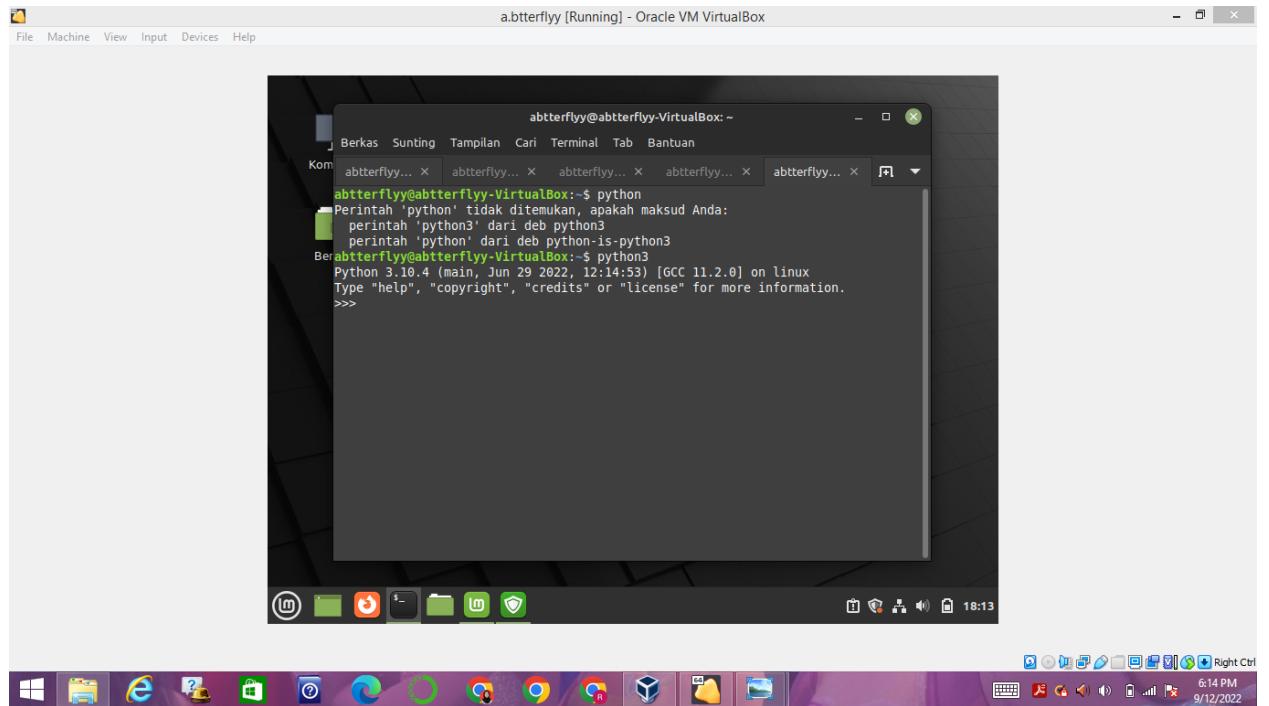
The screenshot shows a Linux desktop environment with a dark theme. At the top, there is a menu bar with options: File, Machine, View, Input, Devices, Help. Below the menu bar is a toolbar with various icons. The main area features a terminal window titled "abterflyy [Running] - Oracle VM VirtualBox". The terminal window has tabs labeled "Berkas", "Sunting", "Tampilan", "Cari", "Terminal", "Tab", and "Bantuan". The current tab is "Terminal". Inside the terminal, the command `free` is run, displaying memory usage statistics:

	total	used	free	shared	buff/cache	available
Mem:	1683176	652052	494040	17892	537084	865476
Swap:	945368	0	945368			

At the bottom of the screen, there is a dock with several application icons. The system tray on the right side shows the date (9/12/2022), time (6:13 PM), battery level, signal strength, and volume.

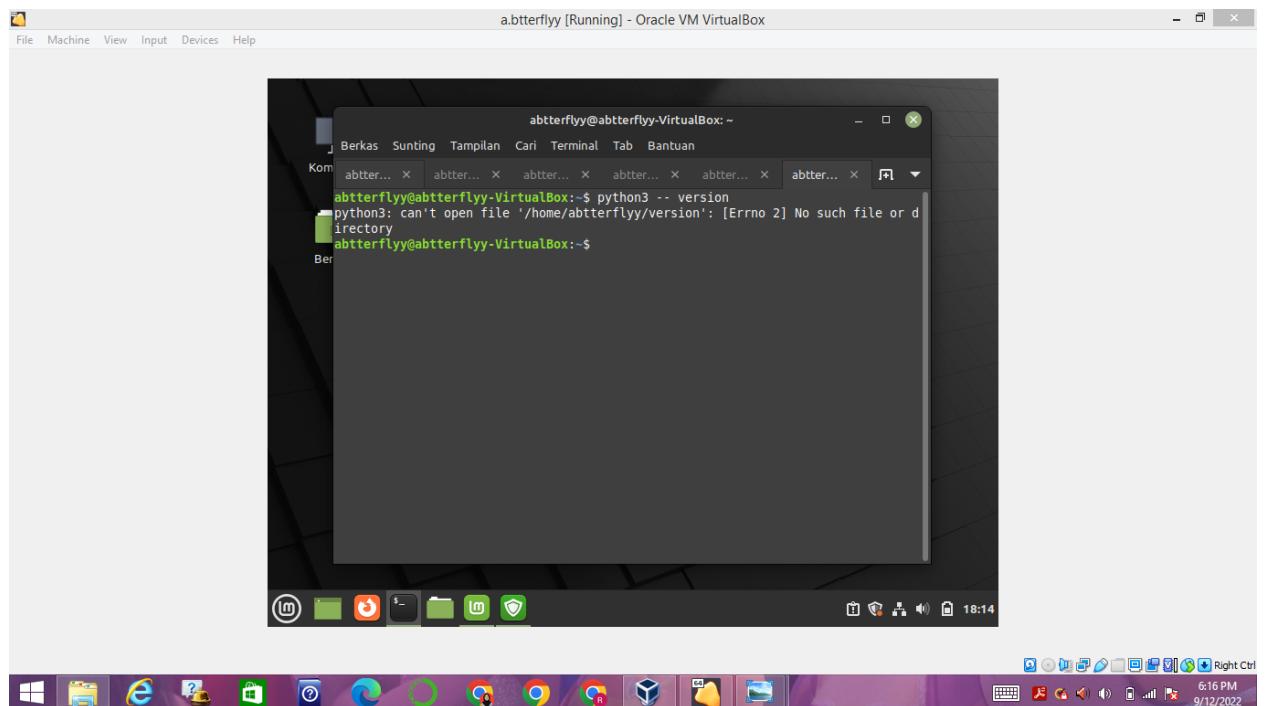
16. python

Digunakan untuk menjalankan Python Interpreter.



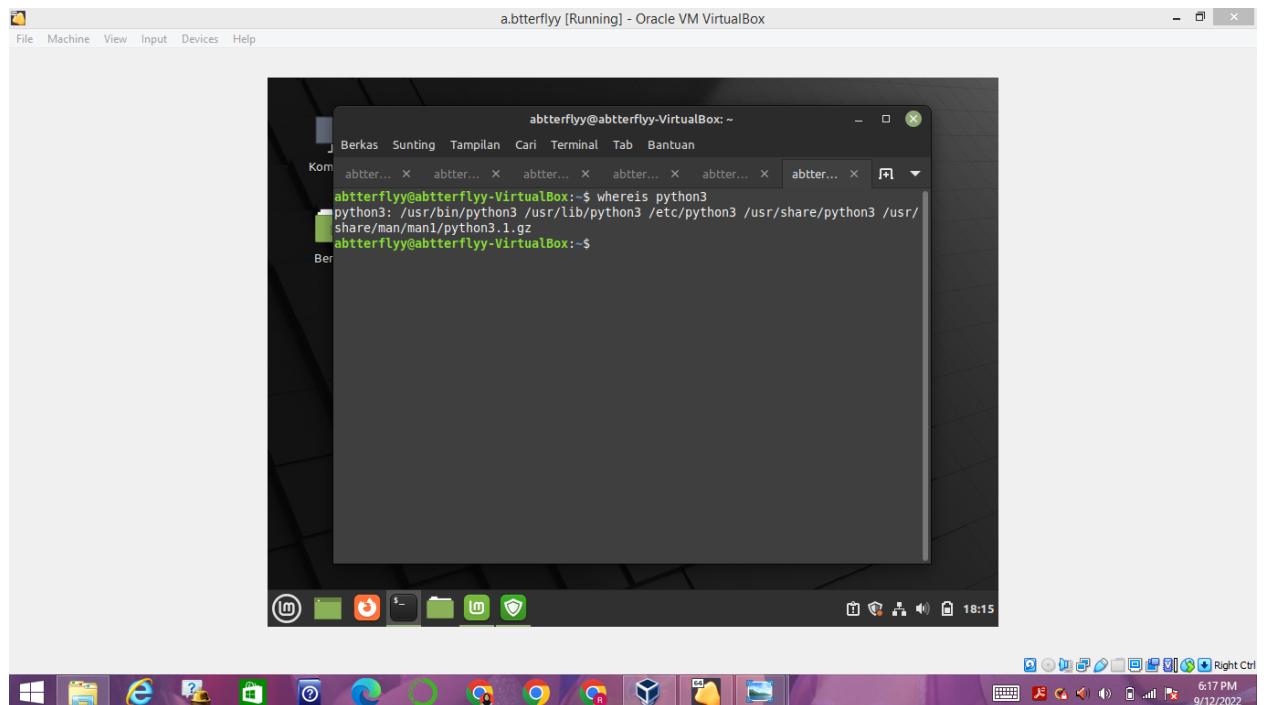
17. version

Digunakan untuk mengetahui versi dari perangkat lunak.



18. whereis

Digunakan untuk mengetahui direktori yang didalamnya terdapat berkas-berkas perangkat lunak.

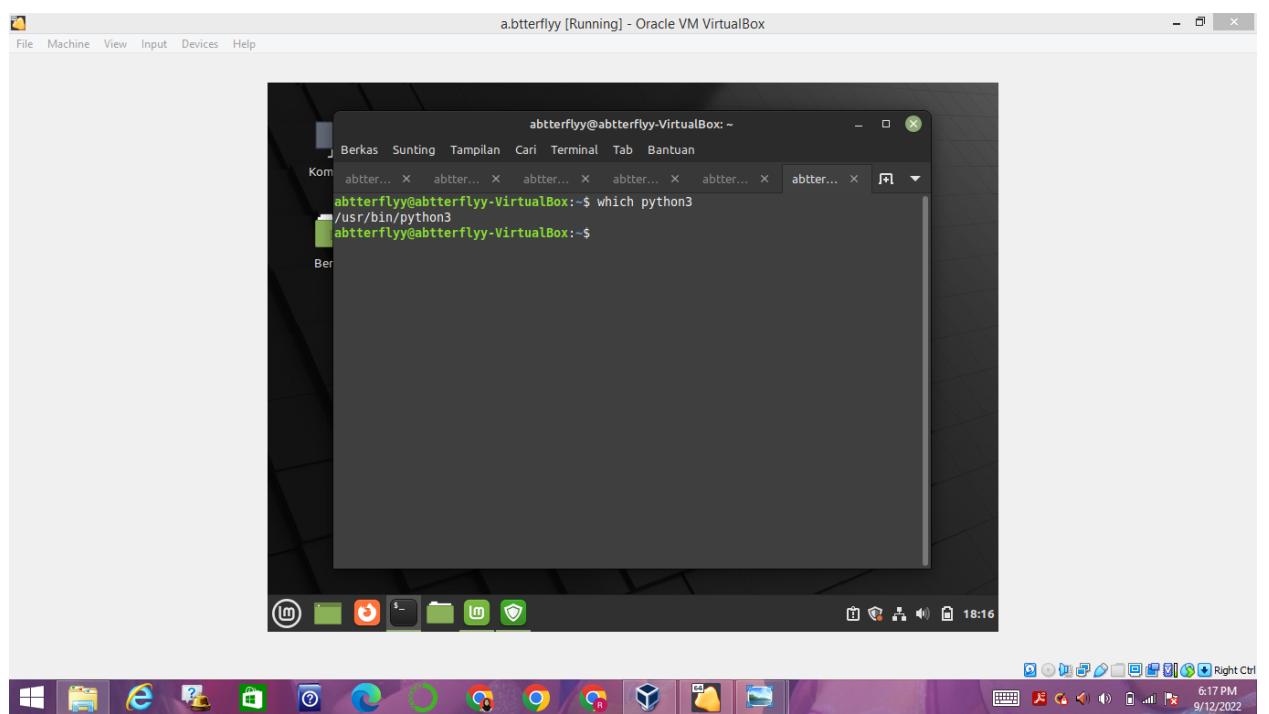


The screenshot shows a Linux desktop environment with a terminal window open. The terminal window title is "abtterflyy [Running] - Oracle VM VirtualBox". Inside the terminal, the command "whereis python3" is run, and the output shows the paths: "/usr/bin/python3", "/usr/lib/python3", "/etc/python3", and "/usr/share/man/man1/python3.1.gz". The desktop interface includes a menu bar at the top with "File", "Machine", "View", "Input", "Devices", and "Help". Below the menu is a toolbar with various icons. The taskbar at the bottom displays several application icons, including a file manager, a browser, and system tools. The system tray on the right shows the date and time as "6:17 PM 9/12/2022".

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

19. which

Digunakan untuk mengetahui direktori utama untuk menyimpan berkas-berkas perangkat lunak.

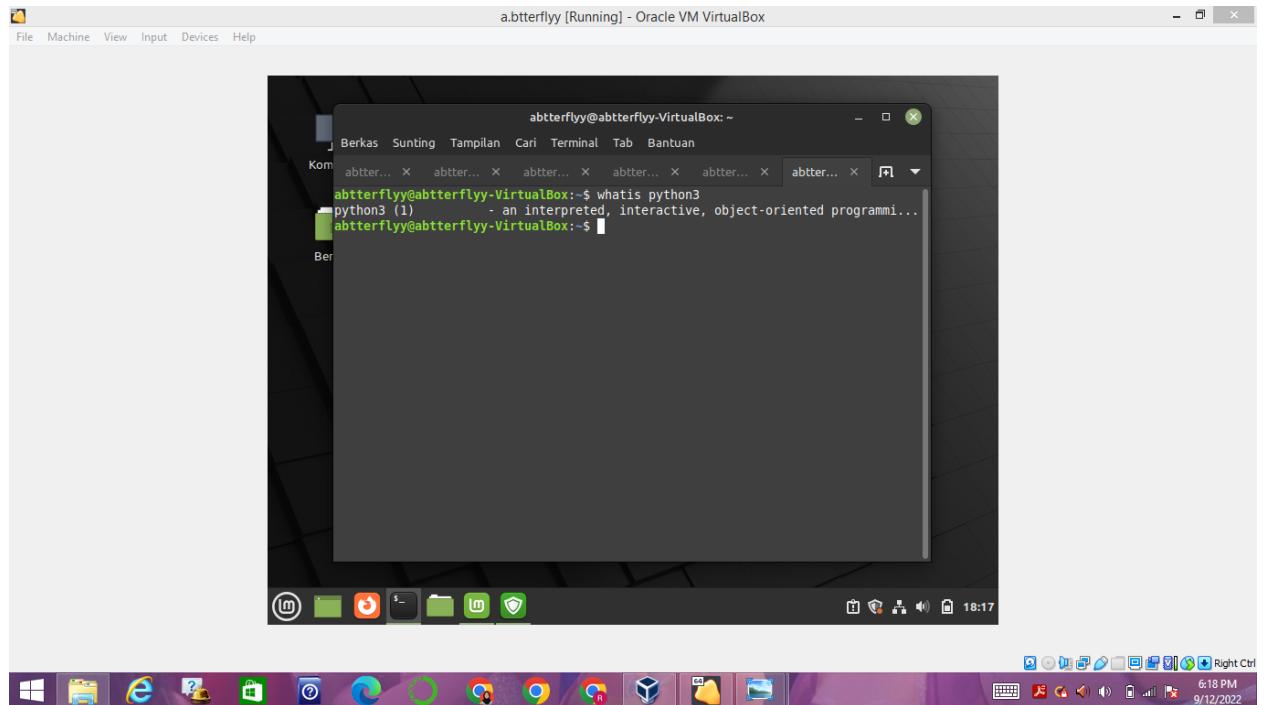


The screenshot shows a Linux desktop environment with a terminal window open. The terminal window title is "abtterflyy [Running] - Oracle VM VirtualBox". Inside the terminal, the command "which python3" is run, and the output shows the path: "/usr/bin/python3". The desktop interface is identical to the previous screenshot, featuring a menu bar, toolbar, taskbar, and system tray.

```
abtterflyy@abtterflyy-VirtualBox:~$ which python3
/usr/bin/python3
abtterflyy@abtterflyy-VirtualBox:~$
```

20. whatis

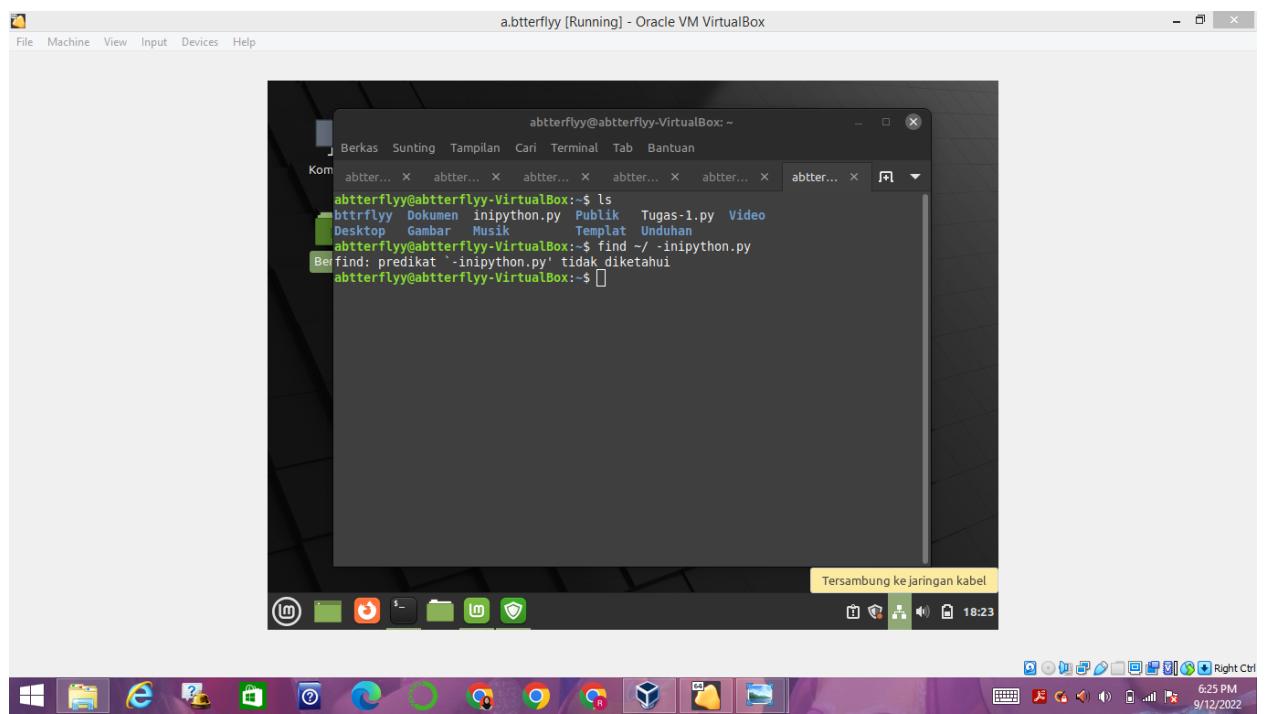
Digunakan untuk mendapatkan definisi dari perangkat lunak.



```
abtterflyy@abtterflyy-VirtualBox:~$ whatis python3
python3 (1) - an interpreted, interactive, object-oriented programmi...
abtterflyy@abtterflyy-VirtualBox:~$
```

21. locate&find

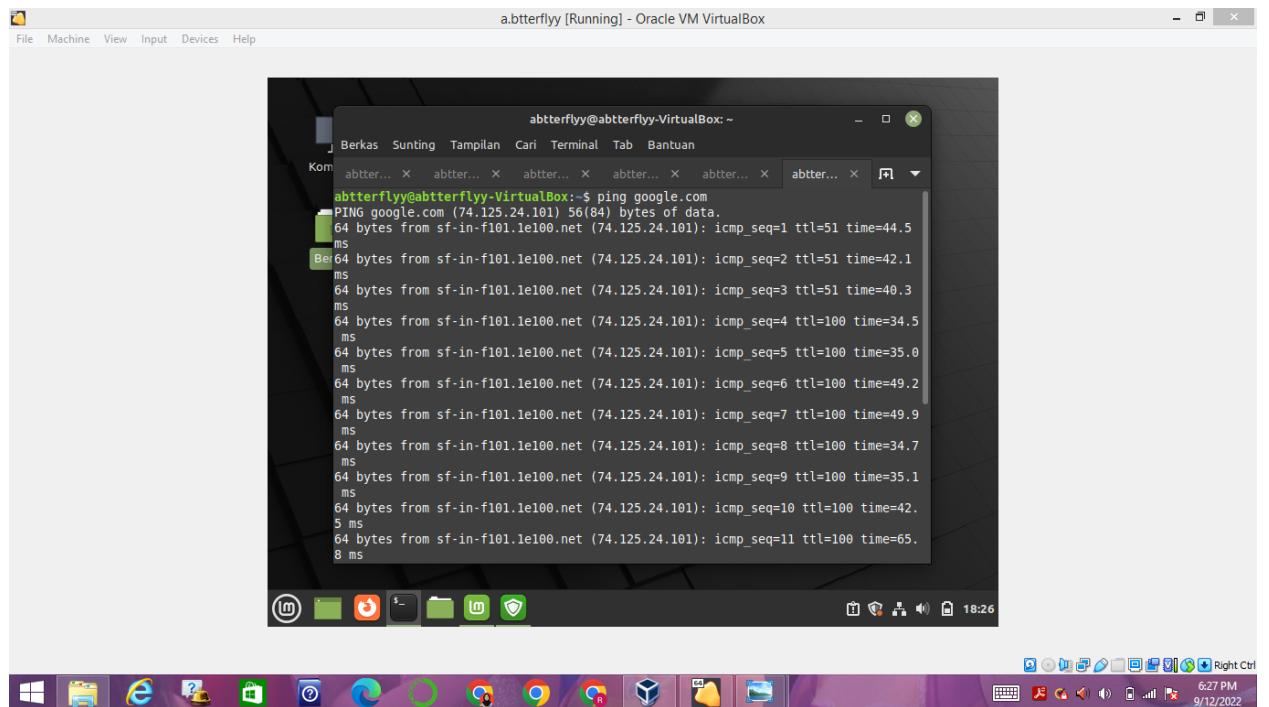
Digunakan untuk mencari berkas, namun locate lebih cepat daripada find.



```
abtterflyy@abtterflyy-VirtualBox:~$ ls
btrfly Dokumen inipython.py Publik Tugas-1.py Video
Desktop Gambar Musik Templat Unduhan
abtterflyy@abtterflyy-VirtualBox:~$ find ~/ -inipython.py
Beri find: predikat '-inipython.py' tidak diketahui
abtterflyy@abtterflyy-VirtualBox:~$
```

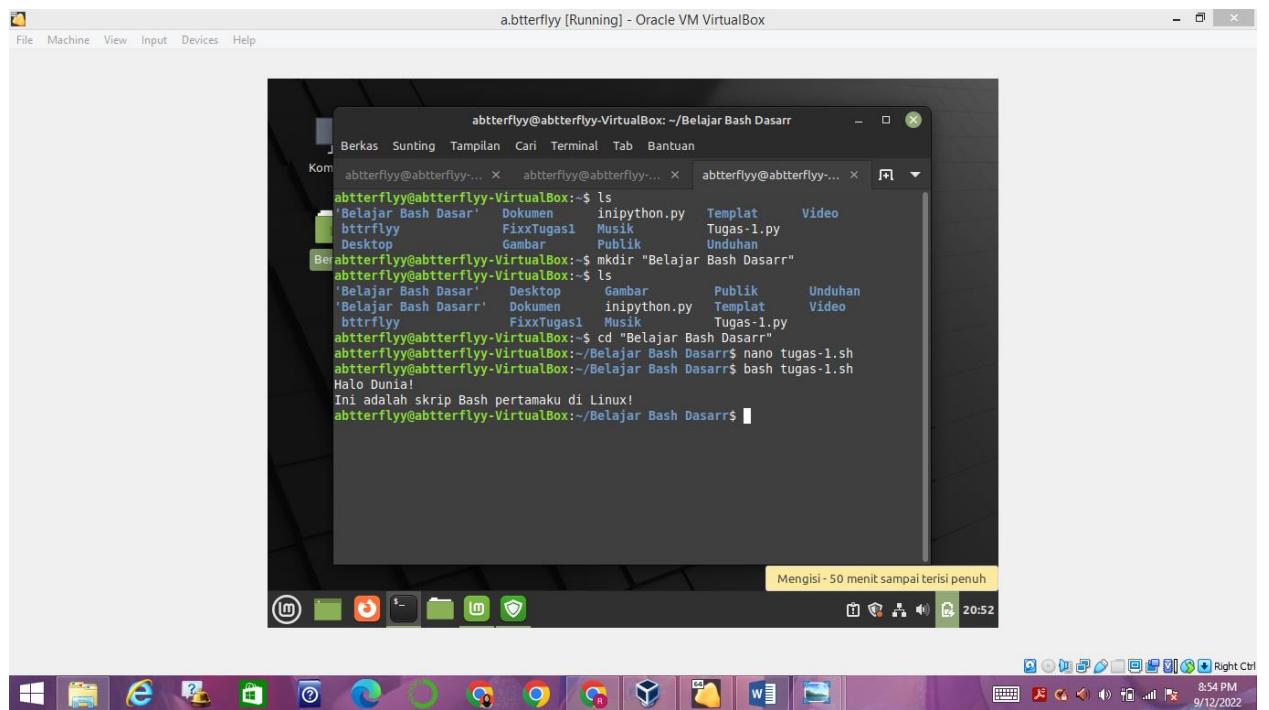
22. ping

Digunakan untuk melihat koneksi internet dengan sebuah alamat IP, website dan sebagainya.



```
abtterflyy@abtterflyy-VirtualBox:~$ ping google.com
PING google.com (74.125.24.101) 56(84) bytes of data.
64 bytes from sf-in-f101.1e100.net (74.125.24.101): icmp_seq=1 ttl=51 time=44.5
ms
64 bytes from sf-in-f101.1e100.net (74.125.24.101): icmp_seq=2 ttl=51 time=42.1
ms
64 bytes from sf-in-f101.1e100.net (74.125.24.101): icmp_seq=3 ttl=51 time=40.3
ms
64 bytes from sf-in-f101.1e100.net (74.125.24.101): icmp_seq=4 ttl=100 time=34.5
ms
64 bytes from sf-in-f101.1e100.net (74.125.24.101): icmp_seq=5 ttl=100 time=35.0
ms
64 bytes from sf-in-f101.1e100.net (74.125.24.101): icmp_seq=6 ttl=100 time=49.2
ms
64 bytes from sf-in-f101.1e100.net (74.125.24.101): icmp_seq=7 ttl=100 time=49.9
ms
64 bytes from sf-in-f101.1e100.net (74.125.24.101): icmp_seq=8 ttl=100 time=34.7
ms
64 bytes from sf-in-f101.1e100.net (74.125.24.101): icmp_seq=9 ttl=100 time=35.1
ms
64 bytes from sf-in-f101.1e100.net (74.125.24.101): icmp_seq=10 ttl=100 time=42.5
ms
64 bytes from sf-in-f101.1e100.net (74.125.24.101): icmp_seq=11 ttl=100 time=65.8 ms
```

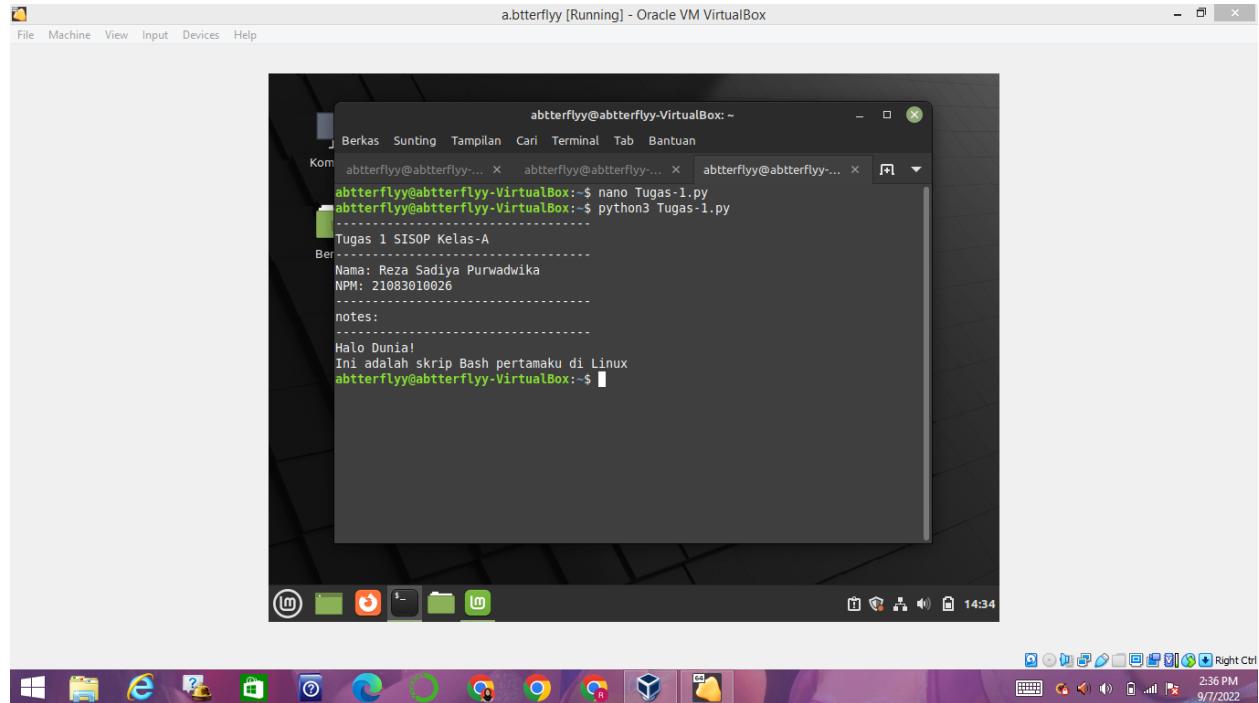
Penyelesaian Soal yang ada di PDF Tugas-1.sh



```
abtterflyy@abtterflyy-VirtualBox:~/Belajar Bash Dasarr
abtterflyy@abtterflyy-VirtualBox:~$ ls
'Belajar Bash Dasar'  Dokumen  inipython.py  Templat   Video
bitrflyy              FixxTugas1  Musik      Tugas-1.py
Desktop               Gambar    Publik     Unduhan
'Delajar Bash Dasarr' Dokumen  inipython.py  Templat   Video
bitrflyy              FixxTugas1  Musik      Tugas-1.py
abtterflyy@abtterflyy-VirtualBox:~$ mkdir "Belajar Bash Dasarr"
abtterflyy@abtterflyy-VirtualBox:~$ ls
'Belajar Bash Dasar'  Desktop  Gambar    Publik     Unduhan
'Belajar Bash Dasarr' Dokumen  inipython.py  Templat   Video
bitrflyy              FixxTugas1  Musik      Tugas-1.py
abtterflyy@abtterflyy-VirtualBox:~$ cd "Belajar Bash Dasarr"
abtterflyy@abtterflyy-VirtualBox:~/Belajar Bash Dasarr$ nano tugas-1.sh
abtterflyy@abtterflyy-VirtualBox:~/Belajar Bash Dasarr$ bash tugas-1.sh
Halo Dunia!
Ini adalah skrip Bash pertamaku di Linux!
abtterflyy@abtterflyy-VirtualBox:~/Belajar Bash Dasarr$
```

Penyelesaian file python

Tugas-1.py



The screenshot shows a Linux desktop environment with a dark theme. At the top, there is a yellow header bar containing the title "Penyelesaian file python" and "Tugas-1.py". Below this is a window titled "a.betterflyy [Running] - Oracle VM VirtualBox". The window contains a terminal session with the following content:

```
abtterflyy@abtterflyy-VirtualBox:~$ nano Tugas-1.py
abtterflyy@abtterflyy-VirtualBox:~$ python3 Tugas-1.py
Tugas 1 SISOP Kelas-A
Ber
Nama: Reza Sadiya Purwadwika
NPM: 21083010026
notes:
Halo Dunia!
Ini adalah skrip Bash pertamaku di Linux
abtterflyy@abtterflyy-VirtualBox:~$
```

At the bottom of the screen is a taskbar with various icons, including the Windows logo, file explorer, browser, and other system utilities. The date and time "9/7/2022 2:36 PM" are also visible at the bottom right.

Alhamdulillah selesai 😊