

1. Jalankan tugas nomor 3 & 4 di day 3 dalam bentuk script BASH!

- untuk menjalankan script BASH, kita harus membuat file untuk menjalankan script



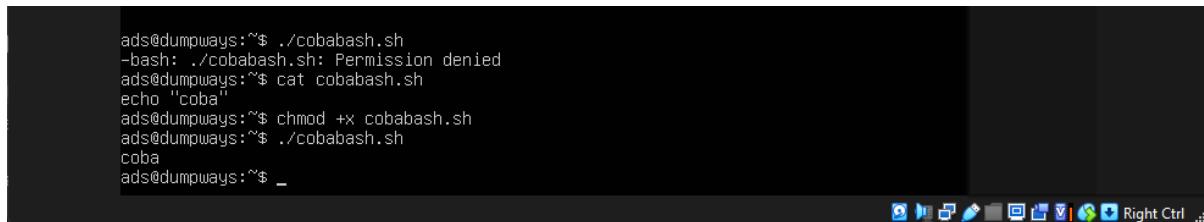
The screenshot shows a terminal window titled "dumpways2 [Running] - Oracle VirtualBox". The menu bar includes File, Machine, View, Input, Devices, and Help. A nano editor window is open with the file name "cobabash.sh" at the top. The code inside the editor is:

```
GNU nano 6.2
echo "coba"
```

A tooltip "Mouse integration ..." is visible in the top right corner of the terminal window.

- untuk menjalankan file tersebut kita harus mengubah hak akses dengan (chmod +x nama file)

- +x = mengubah hak akses menjadi file bisa di eksekusi



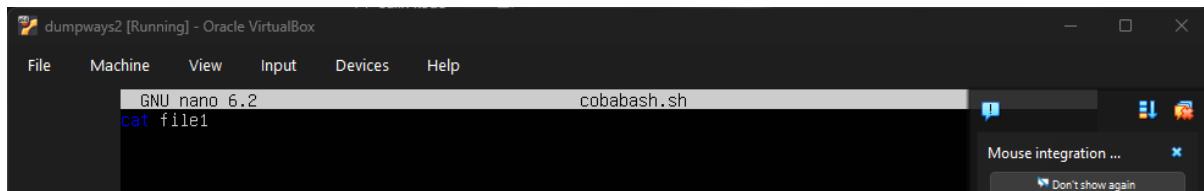
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```
ads@dumpways:~$ ./cobabash.sh
-bash: ./cobabash.sh: Permission denied
ads@dumpways:~$ cat cobabash.sh
echo "coba"
ads@dumpways:~$ chmod +x cobabash.sh
ads@dumpways:~$ ./cobabash.sh
coba
ads@dumpways:~$ _
```

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a. cat = membaca file

- membaca file menggunakan script bash dengan mengetik perintah didalam file lalu eksekusi



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```
GNU nano 6.2
cat file1
```

A tooltip "Mouse integration ..." is visible in the top right corner of the terminal window.

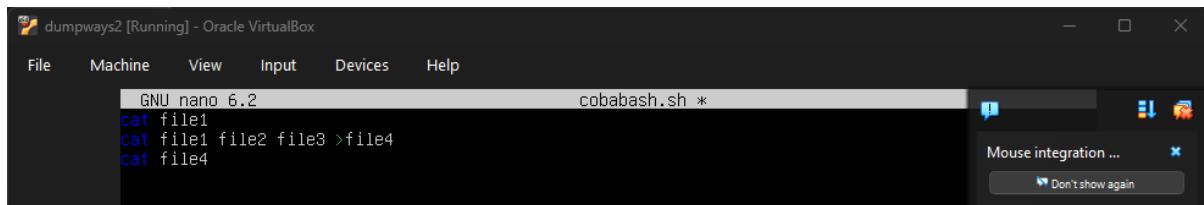


The screenshot shows a terminal window titled "dumpways2 [Running] - Oracle VirtualBox". The menu bar includes File, Machine, View, Input, Devices, and Help. A nano editor window is open with the file name "cobabash.sh" at the top. The code inside the editor is:

```
ads@dumpways:~$ ./cobabash.sh
hai file1
ads@dumpways:~$
```

A tooltip "Mouse integration ..." is visible in the top right corner of the terminal window.

- bisa juga membaca beberapa perintah

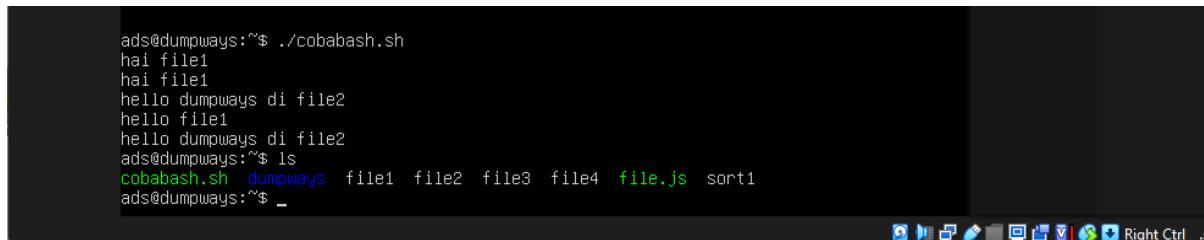


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```
GNU nano 6.2
cat file1
cat file1 file2 file3 >file4
cat file4
```

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- membaca file, menggabungkan file yang disimpan di file baru (file4)



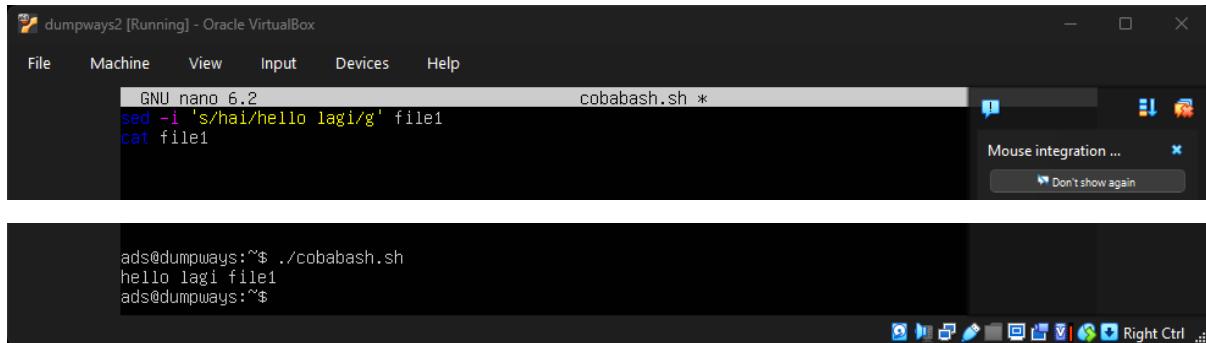
The screenshot shows a terminal window titled "dumpways2 [Running] - Oracle VirtualBox". The menu bar includes File, Machine, View, Input, Devices, and Help. A nano editor window is open with the file name "cobabash.sh" at the top. The code inside the editor is:

```
ads@dumpways:~$ ./cobabash.sh
hai file1
hai file1
hello dumpways di file2
hello file1
hello dumpways di file2
ads@dumpways:~$ ls
cobabash.sh  dumpways  file1  file2  file3  file4  file.js  sort1
ads@dumpways:~$ _
```

A tooltip "Mouse integration ..." is visible in the top right corner of the terminal window.

b. sed

- mengubah text didalam file



```
dumpways2 [Running] - Oracle VirtualBox
File Machine View Input Devices Help
GNU nano 6.2 cobabash.sh *
sed -i 's/hai/hello lagi/g' file1
cat file1
ads@dumpways:~$ ./cobabash.sh
hello lagi file1
ads@dumpways:~$
```

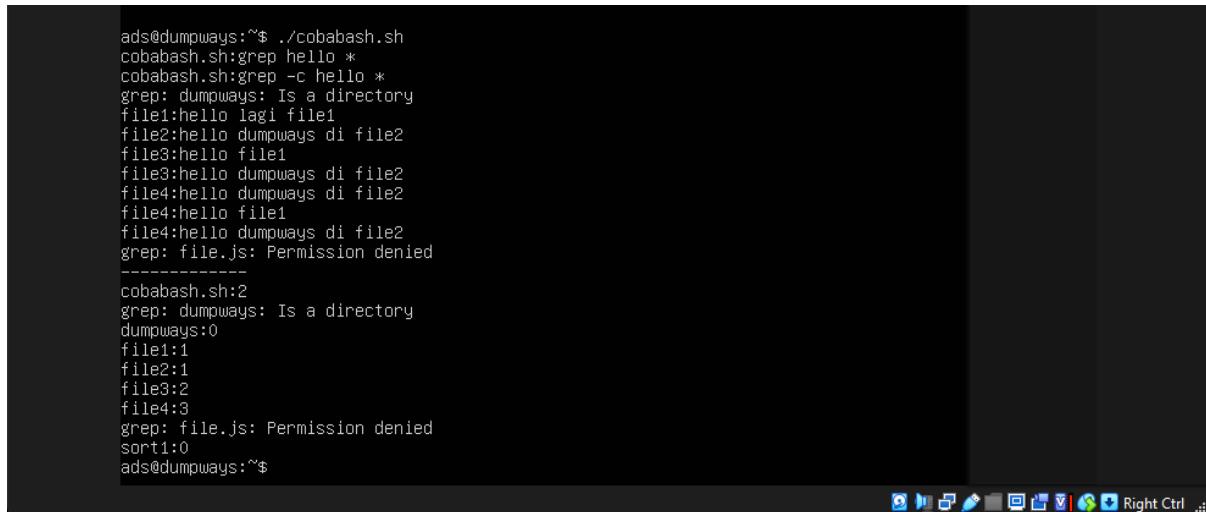
c. grep

- mencari text



```
dumpways2 [Running] - Oracle VirtualBox
File Machine View Input Devices Help
GNU nano 6.2 cobabash.sh *
grep hello *
echo "-----"
grep -c hello *
ads@dumpways:~$ ./cobabash.sh
cobabash.sh:grep hello *
cobabash.sh:grep -c hello *
grep: dumpways: Is a directory
file1:hello lagi file1
file2:hello dumpways di file2
file3:hello file1
file3:hello dumpways di file2
file4:hello dumpways di file2
file4:hello file1
file4:hello dumpways di file2
grep: file.js: Permission denied
-----
cobabash.sh:2
grep: dumpways: Is a directory
dumpways:0
file1:1
file2:1
file3:2
file4:3
grep: file.js: Permission denied
sort1:0
ads@dumpways:~$
```

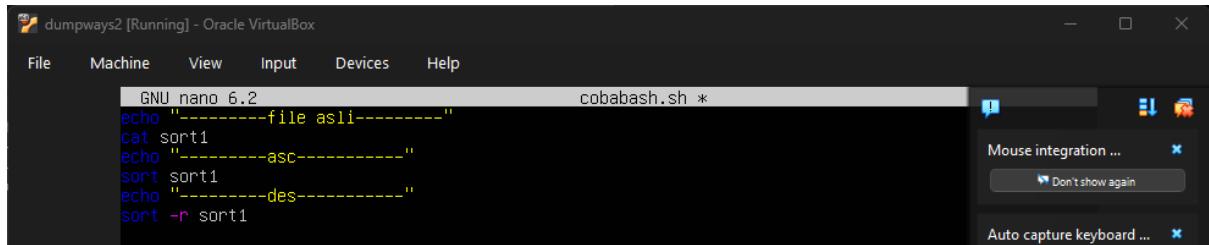
- mencari text dan menghitung kata didalam direktori



```
ads@dumpways:~$ ./cobabash.sh
cobabash.sh:grep hello *
cobabash.sh:grep -c hello *
grep: dumpways: Is a directory
file1:hello lagi file1
file2:hello dumpways di file2
file3:hello file1
file3:hello dumpways di file2
file4:hello dumpways di file2
file4:hello file1
file4:hello dumpways di file2
grep: file.js: Permission denied
-----
cobabash.sh:2
grep: dumpways: Is a directory
dumpways:0
file1:1
file2:1
file3:2
file4:3
grep: file.js: Permission denied
sort1:0
ads@dumpways:~$
```

d. sort

- mengurutkan angka atau huruf



```
GNU nano 6.2          cobabash.sh *
```

```
echo "-----file asli-----"
cat sort1
echo "-----asc-----"
sort sort1
echo "-----des-----"
sort -r sort1
```

The terminal window shows a nano editor session with a file named cobabash.sh. The script contains four lines of code: an echo command for 'file asli', a cat command reading from a file named sort1, an echo command for 'asc', and a sort command with the '-r' option reading from sort1. A context menu is open on the right side of the terminal, with options like 'Mouse integration ...', 'Don't show again', and 'Auto capture keyboard ...'.

- mengurutkan secara ascending dan descending



```
ads@dumpways:~$ ./cobabash.sh
-----file asli-----
6
3
1
2
5
4
-----asc-----
1
2
3
4
5
6
-----des-----
6
5
4
3
2
1
ads@dumpways:~$ _
```

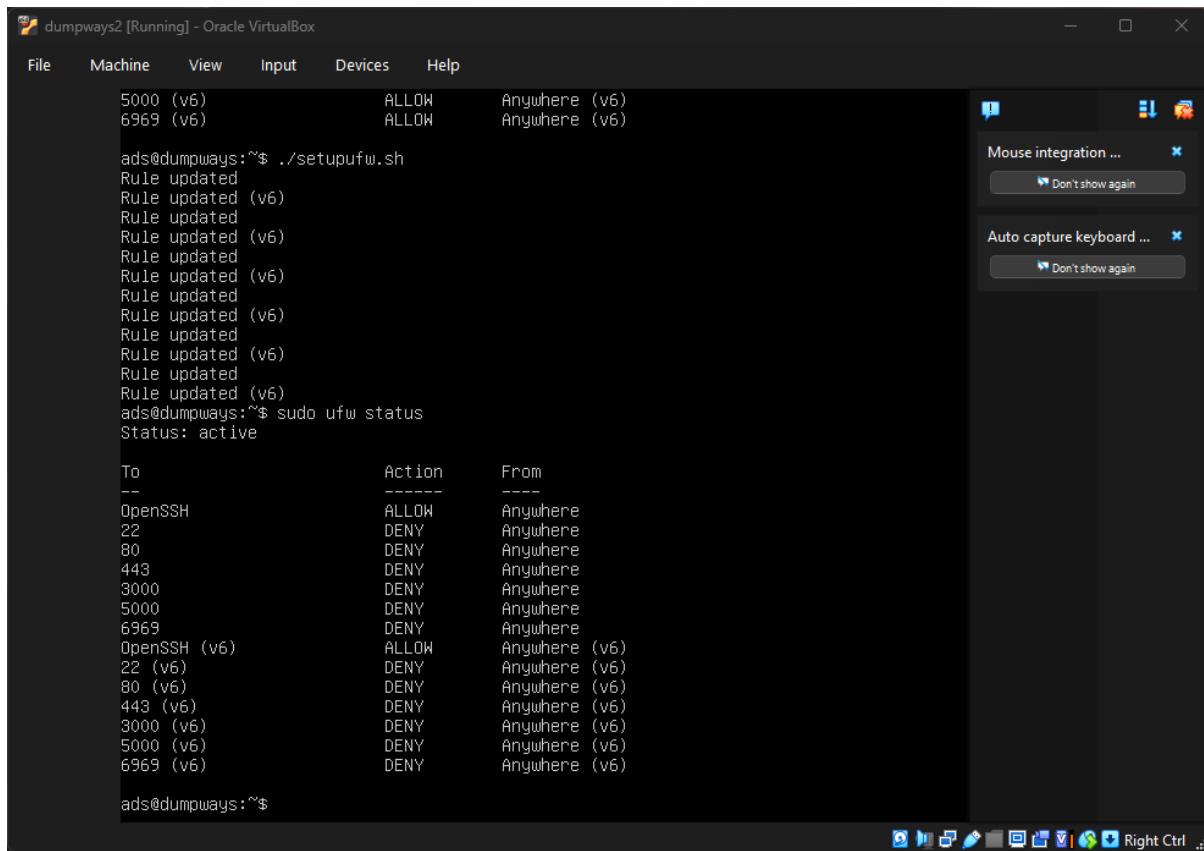
The terminal window shows the execution of the cobabash.sh script. The output consists of three parts: the original file content ('file asli') with numbers 6, 3, 1, 2, 5, 4; the ascending sorted output ('asc') with numbers 1, 2, 3, 4, 5, 6; and the descending sorted output ('des') with numbers 6, 5, 4, 3, 2, 1. The prompt 'ads@dumpways:~\$ _' is at the bottom.

e. Nyalakan ufw dengan memberikan akses untuk port 22, 80, 443, 3000, 5000 dan 6969!

- dengan menggunakan script bash bisa mengizinkan/menolak izin port secara langsung menggunakan perintah looping, pertama membuat array port lalu melakukan looping pada array yang akan melakukan sudo ufw deny \$port
- karena sebelumnya telah melakukan pengizinan terhadap port maka pada gambar melakukan penolakan
- jika ingin mengizinkan kembali ubah perintah menjadi sudo ufw allow \$port



```
GNU nano 6.2                               setupufw.sh *
PORTS=(22 80 443 3000 5000 6969)
for port in ${PORTS[@]}
do
    sudo ufw deny $port_
done
```



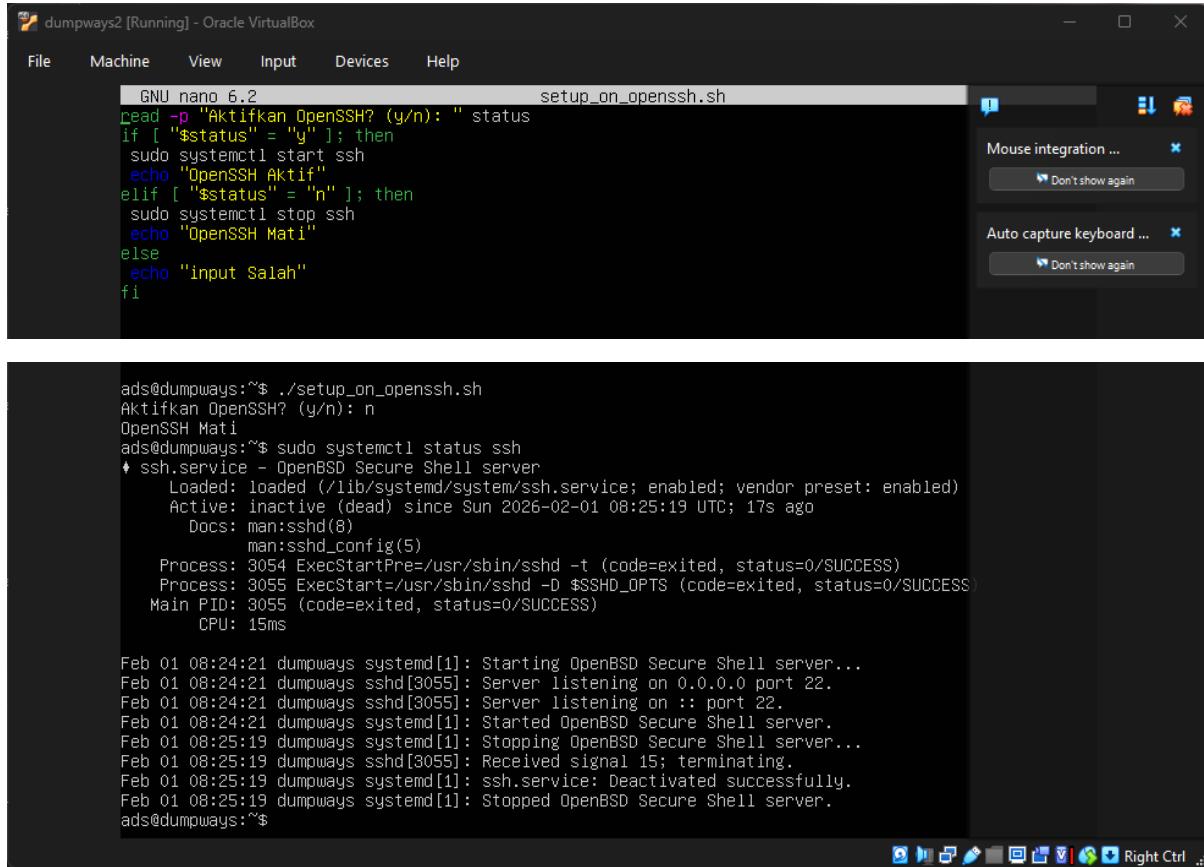
```
ads@dumpways2:~$ ./setupufw.sh
Rule updated
Rule updated (v6)
Rule updated
Rule updated
Rule updated (v6)
ads@dumpways2:~$ sudo ufw status
Status: active

To                         Action      From
--                         ----      --
OpenSSH                    ALLOW      Anywhere (v6)
22                         DENY       Anywhere
80                         DENY       Anywhere
443                        DENY       Anywhere
3000                       DENY       Anywhere
5000                       DENY       Anywhere
6969                       DENY       Anywhere
OpenSSH (v6)                ALLOW      Anywhere (v6)
22 (v6)                     DENY       Anywhere (v6)
80 (v6)                     DENY       Anywhere (v6)
443 (v6)                    DENY       Anywhere (v6)
3000 (v6)                   DENY       Anywhere (v6)
5000 (v6)                   DENY       Anywhere (v6)
6969 (v6)                   DENY       Anywhere (v6)

ads@dumpways2:~$
```

2. Scriptnya bisa menyalakan/menambahkan, dan juga bisa mematikan/menghapus konfigurasinya (No. 1)

- Pada script bash kita bisa menggunakan perintah if-else, yang mana akan membaca text konfirmasi jika "n" maka akan menjalankan perintah sudo systemctl stop ssh

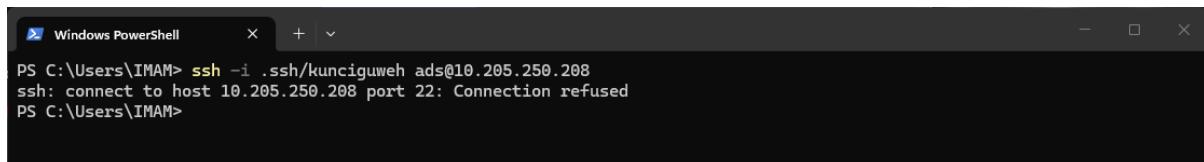


```
GNU nano 6.2          setup_on_openssh.sh
read -p "Aktifkan OpenSSH? (y/n): " status
if [ "$status" = "y" ]; then
    sudo systemctl start ssh
    echo "OpenSSH Aktif"
elif [ "$status" = "n" ]; then
    sudo systemctl stop ssh
    echo "OpenSSH Mati"
else
    echo "input Salah"
fi

ads@dumpways:~$ ./setup_on_openssh.sh
Aktifkan OpenSSH? (y/n): n
OpenSSH Mati
ads@dumpways:~$ sudo systemctl status ssh
● ssh.service - OpenBSD Secure Shell server
  Loaded: loaded (/lib/systemd/system/ssh.service; enabled; vendor preset: enabled)
  Active: inactive (dead) since Sun 2026-02-01 08:25:19 UTC; 17s ago
    Docs: man:sshd(8)
          man:sshd_config(5)
  Process: 3054 ExecStartPre=/usr/sbin/sshd -t (code=exited, status=0/SUCCESS)
  Process: 3055 ExecStart=/usr/sbin/sshd -D $SSHD_OPTS (code=exited, status=0/SUCCESS)
 Main PID: 3055 (code=exited, status=0/SUCCESS)
    CPU: 15ms

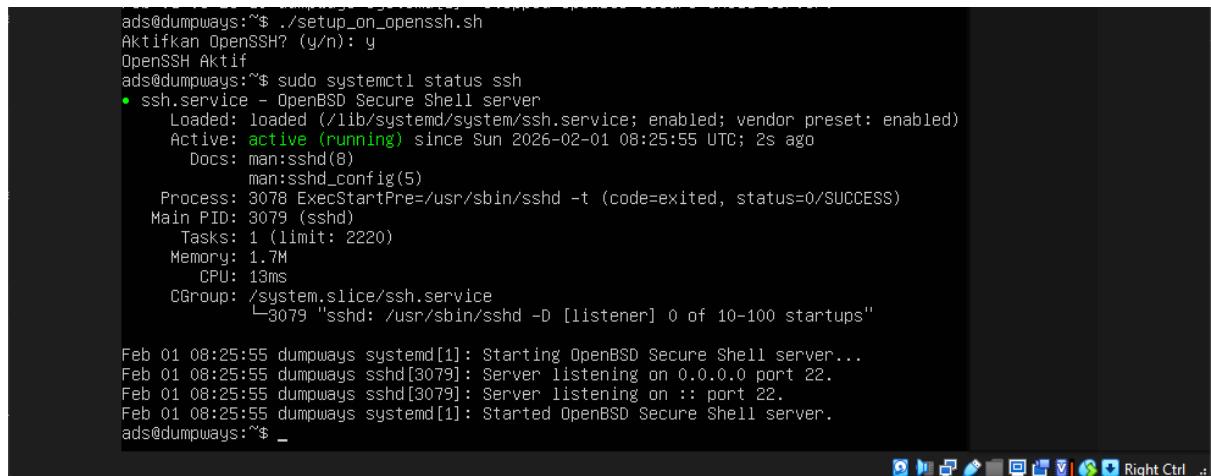
Feb 01 08:24:21 dumpways systemd[1]: Starting OpenBSD Secure Shell server...
Feb 01 08:24:21 dumpways sshd[3055]: Server listening on 0.0.0.0 port 22.
Feb 01 08:24:21 dumpways sshd[3055]: Server listening on :: port 22.
Feb 01 08:24:21 dumpways systemd[1]: Started OpenBSD Secure Shell server.
Feb 01 08:25:19 dumpways systemd[1]: Stopping OpenBSD Secure Shell server...
Feb 01 08:25:19 dumpways sshd[3055]: Received signal 15; terminating.
Feb 01 08:25:19 dumpways systemd[1]: ssh.service: Deactivated successfully.
Feb 01 08:25:19 dumpways systemd[1]: Stopped OpenBSD Secure Shell server.
ads@dumpways:~$
```

- Kita coba di terminal akan keluar connection refused karena ssh inactive (dead)



```
PS C:\Users\IMAM> ssh -i .ssh/kunciguweh ads@10.205.250.208
ssh: connect to host 10.205.250.208 port 22: Connection refused
PS C:\Users\IMAM>
```

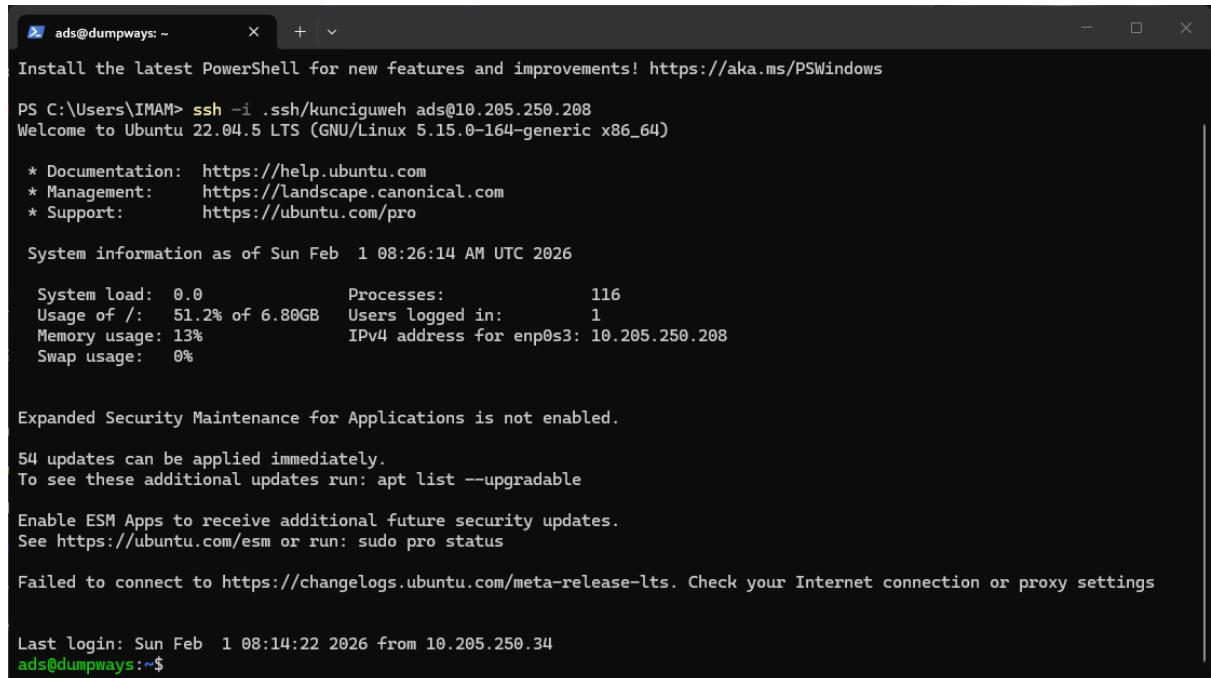
- lalu jika saat membaca text konfirmasi “y” maka akan menjalankan perintah sudo systemctl start ssh



```
ads@dumpways:~$ ./setup_on_openssh.sh
Aktifkan OpenSSH? (y/n): y
OpenSSH Aktif
ads@dumpways:~$ sudo systemctl status ssh
● ssh.service - OpenBSD Secure Shell server
   Loaded: loaded (/lib/systemd/system/ssh.service; enabled; vendor preset: enabled)
   Active: active (running) since Sun 2026-02-01 08:25:55 UTC; 2s ago
     Docs: man:sshd(8)
           man:sshd_config(5)
  Process: 3078 ExecStartPre=/usr/sbin/sshd -t (code=exited, status=0/SUCCESS)
 Main PID: 3079 (sshd)
    Tasks: 1 (limit: 2220)
   Memory: 1.7M
      CPU: 13ms
     CGroup: /system.slice/ssh.service
             └─3079 "sshd: /usr/sbin/sshd -D [listener] 0 of 10-100 startups"

Feb 01 08:25:55 dumpways systemd[1]: Starting OpenBSD Secure Shell server...
Feb 01 08:25:55 dumpways sshd[3079]: Server listening on 0.0.0.0 port 22.
Feb 01 08:25:55 dumpways sshd[3079]: Server listening on :: port 22.
Feb 01 08:25:55 dumpways systemd[1]: Started OpenBSD Secure Shell server.
ads@dumpways:~$ _
```

- Kita coba di terminal akan jalan karena ssh sudah active (running)



```
ads@dumpways:~> + | 
Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows
PS C:\Users\IMAM> ssh -i .ssh/kunciguweh ads@10.205.250.208
Welcome to Ubuntu 22.04.5 LTS (GNU/Linux 5.15.0-164-generic x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/pro

System information as of Sun Feb  1 08:26:14 AM UTC 2026

 System load:  0.0          Processes:           116
 Usage of /:   51.2% of 6.80GB  Users logged in:        1
 Memory usage: 13%          IPv4 address for enp0s3: 10.205.250.208
 Swap usage:   0%

Expanded Security Maintenance for Applications is not enabled.

54 updates can be applied immediately.
To see these additional updates run: apt list --upgradable

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

Failed to connect to https://changelogs.ubuntu.com/meta-release-lts. Check your Internet connection or proxy settings

Last login: Sun Feb  1 08:14:22 2026 from 10.205.250.34
ads@dumpways:~$
```