

Laporan Praktikum 2

Administrasi Sistem

Proses Boot & Manajemen Service



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Proses Boot

Proses boot merupakan proses yang dijalankan sebelum masuk sistem operasi

Berikut merupakan **implementasi dari proses boot** dan sistem operasi yang digunakan adalah **Ubuntu 16.04 LTS** :

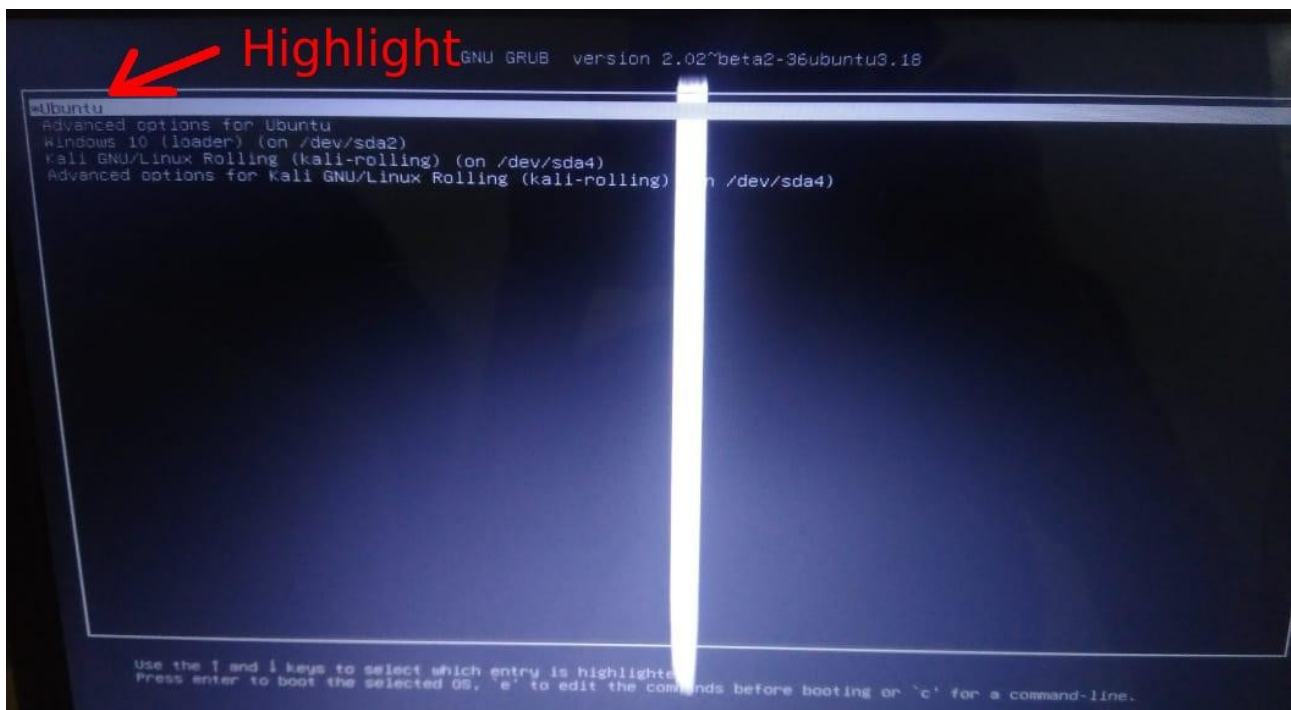
Lab 2.1 Memeriksa Kernel Default Pada Grub

1. **Buka terminal** dengan GUI atau tekan **Ctrl + Alt + T** untuk mengidentifikasi versi kernal melalui command line.

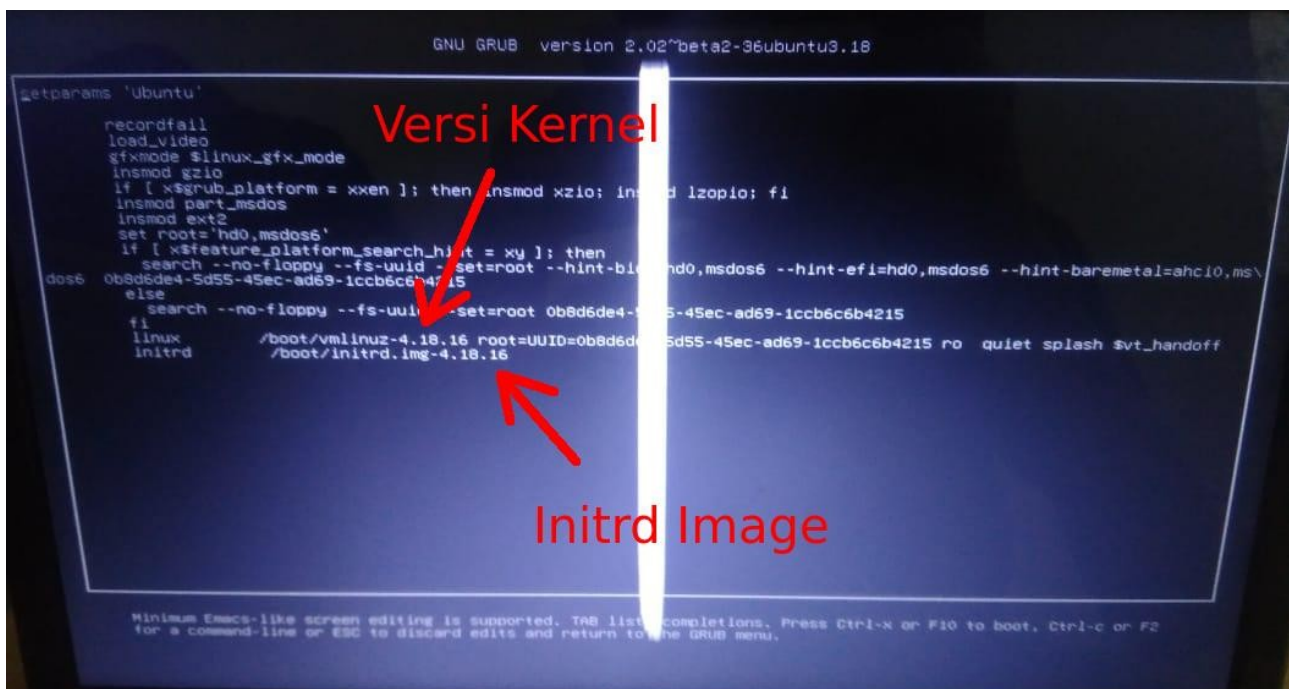


```
mazharrasyad@mazharrasyad: ~  
mazharrasyad@mazharrasyad:~$
```

2. Nyalakan komputer (atau restart), tunggu komputer melakukan proses boot, hingga tampak program boot loader grub. Tekan tombol 'ESC' , pastikan Anda mendapatkan screen menu grub boot loader. Pilih (Highlight saja tanpa menekan tombol 'enter') menu sistem operasi linux yang ada. Kemudian tekan tombol 'e' (edit).



3. Kemudian amati/catat versi kernel linux dan temukan initrd image. Untuk melakukan boot selanjutnya, tekan 'b' (atau pada ubuntu tekan 'ctl-x')

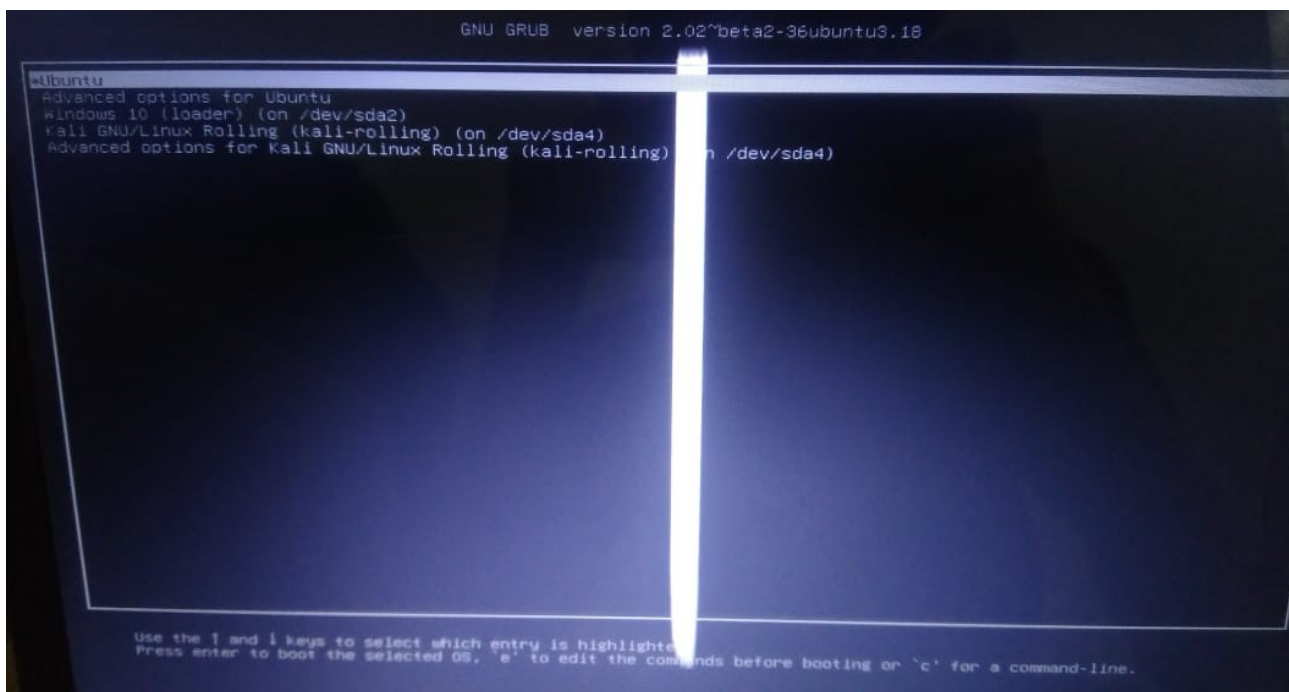


Lab 2.2 Memberikan Parameter Kernel Pada Grub

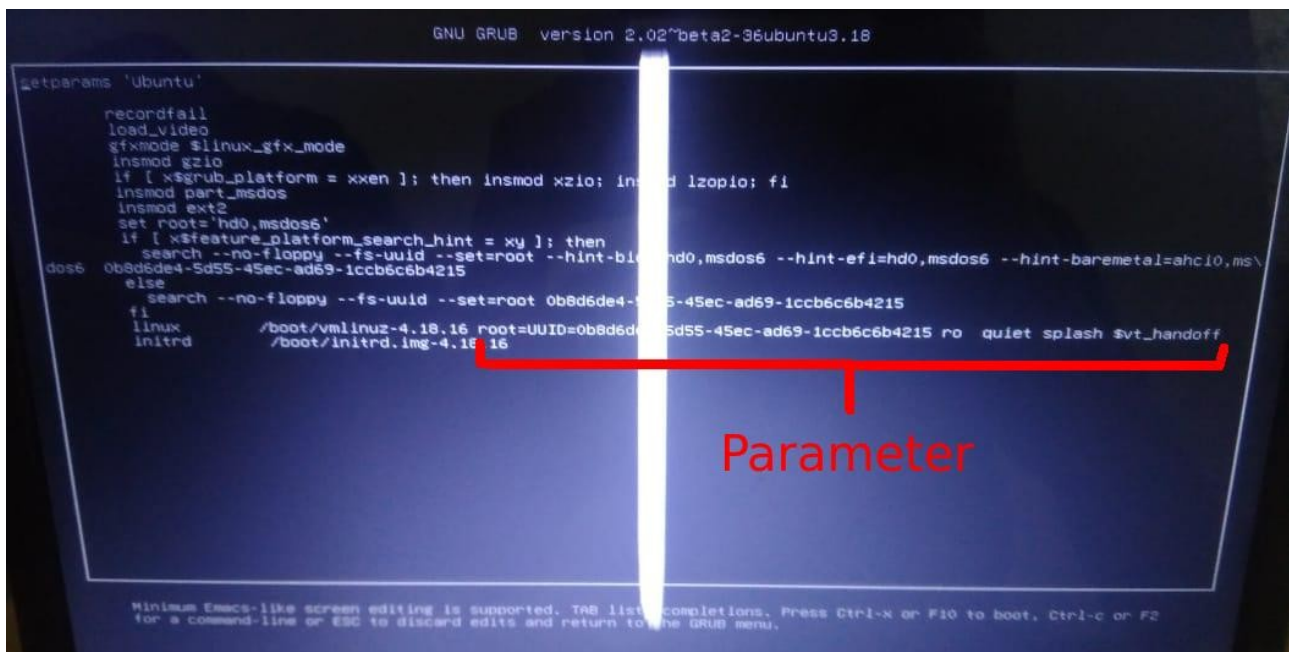
1. Ketik **cat /proc/cmdline** untuk memeriksa sebelum dilakukan perubahan pada parameter kernel

```
mazharrasyad@mazharrasyad: ~  
mazharrasyad@mazharrasyad:~$ cat /proc/cmdline  
BOOT_IMAGE=/boot/vmlinuz-4.18.16 root=UUID=0b8d6de4-5d55-45ec-ad69-1ccb6c6b4215  
ro quiet splash  
mazharrasyad@mazharrasyad:~$
```

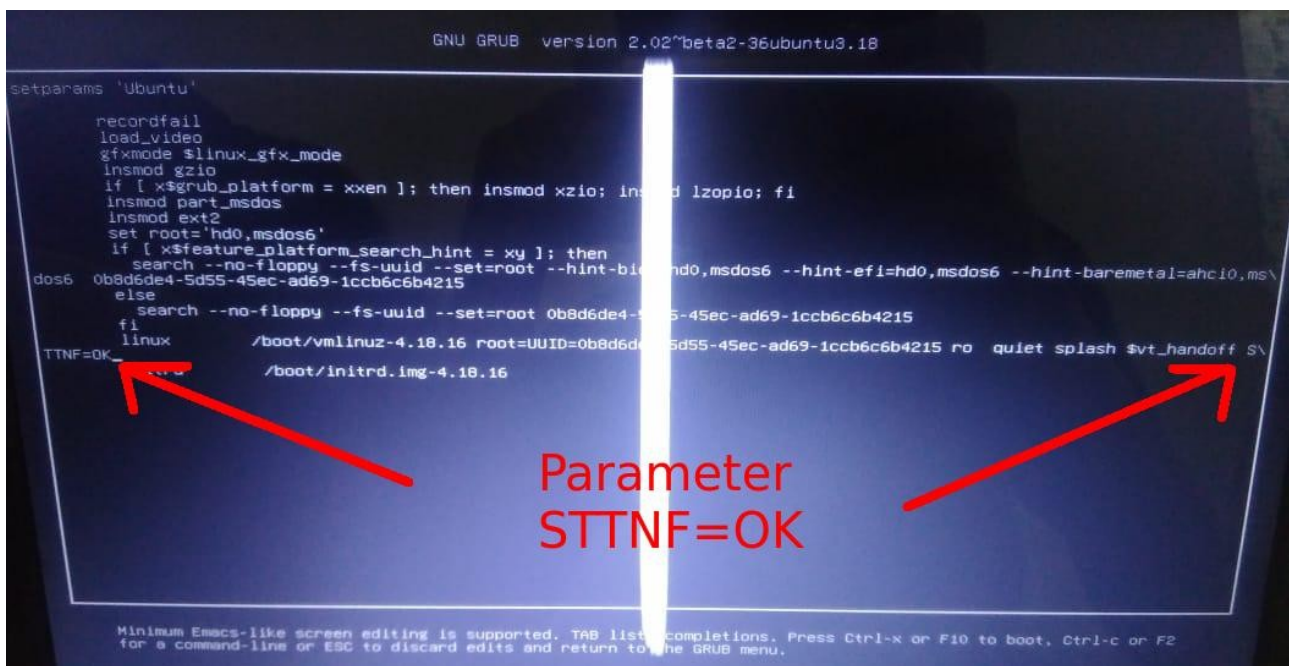
- Kemudian Nyalakan komputer (atau restart), tunggu komputer melakukan proses boot. Tekan tombol 'ESC' hingga tampak program boot loader grub, pastikan Anda mendapatkan screen menu grub boot loader.



- Pilih (Highlight saja tanpa menekan tombol 'enter') menu sistem operasi linux yang ada. Kemudian tekan tombol 'e' (edit)



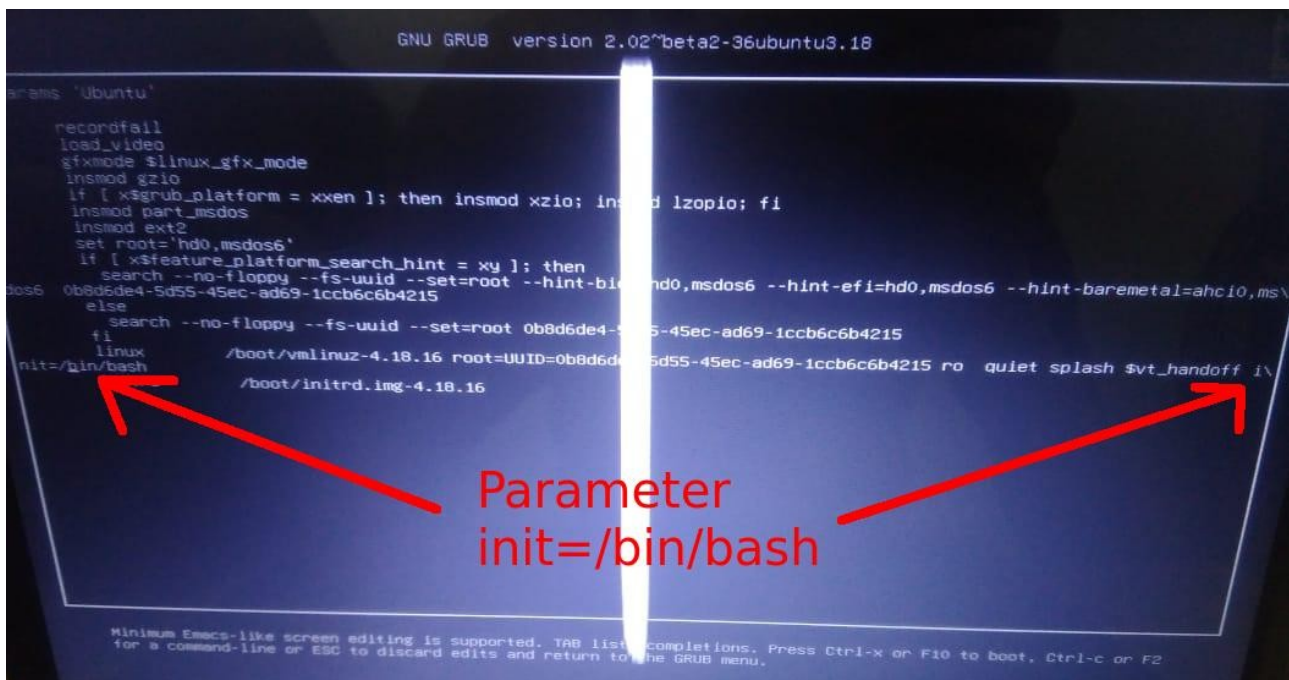
- Pilih (highlight) kernel linux, dan selanjutnya arahkan kursor ke akhir baris tambahkanlah parameter berikut ini : **STTNF=OK**.
- Tekan tombol 'enter' kemudian tekan tombol 'b' (atau pada ubuntu cukup tekan 'ctrl-x'). Tunggu hingga komputer linux Anda melakukan proses boot.



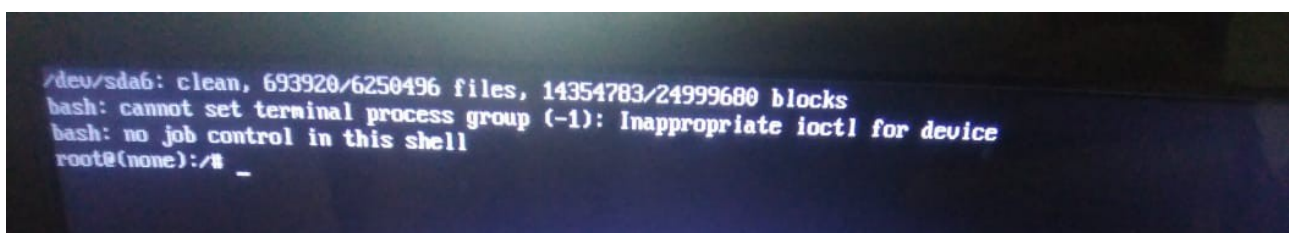
3. Login ke komputer linux Anda dan Lakukan verifikasi parameter yang telah Anda berikan saat akan memulai boot kernel linux pada grub apakah terdapat dalam file /proc/cmdline, dengan perintah berikut :

```
mazharrasyad@mazharrasyad: ~  
mazharrasyad@mazharrasyad:~$ cat /proc/cmdline  
BOOT_IMAGE=/boot/vmlinuz-4.18.16 root=UUID=0b8d6de4-5d55-45ec-ad69-1ccb6c6b4215  
ro quiet splash vt.handoff=7 STTNF=OK  
mazharrasyad@mazharrasyad:~$
```

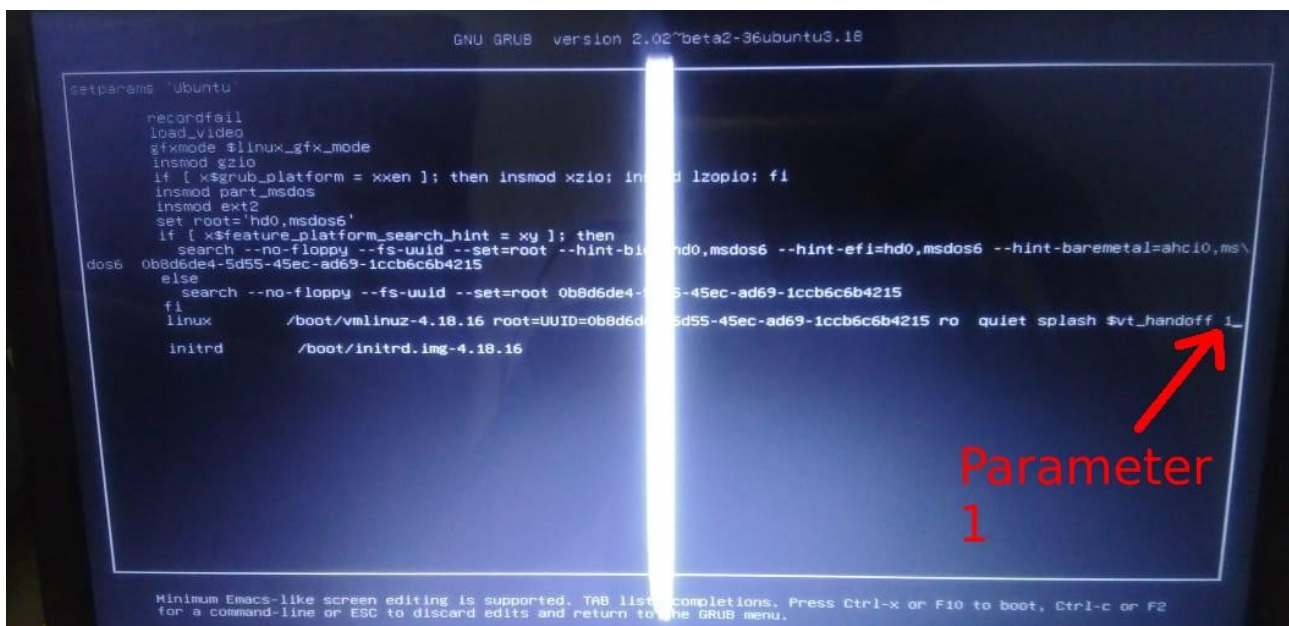
4. Ulangi langkah langkah diatas, untuk kasus parameter yang diberikan ke kernel adalah : INIT=/bin/bash, perhatikan apakah yang terjadi.!



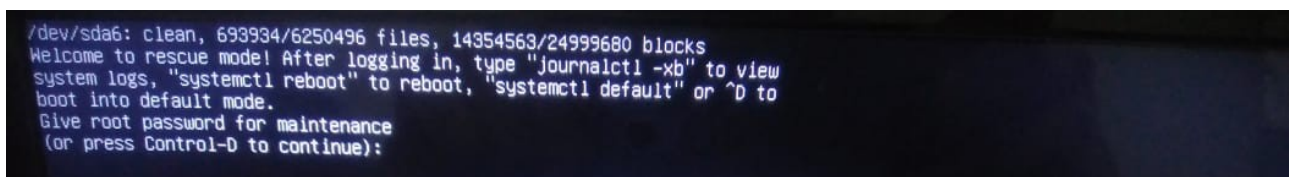
- Inilah yang terjadi



5. Ulangi langkah langkah diatas, untuk kasus parameter yang diberikan ke kernel adalah 1, perhatikan apakah yang terjadi.!



- Inilah yang terjadi



Lab 2.3 Memeriksa Default & Current Run Level

1. Ketik **sudo su -** untuk Login sebagai root

```
root@mazharrasyad: ~  
mazharrasyad@mazharrasyad:~$ sudo su -  
[sudo] password for mazharrasyad:  
root@mazharrasyad:~#
```

2. Periksa default run level dengan perintah berikut ini :

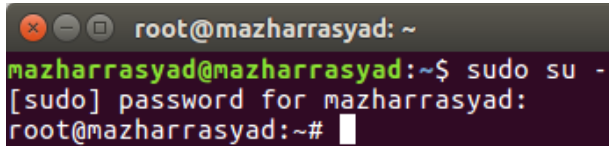
```
root@mazharrasyad: ~  
root@mazharrasyad:~# grep "DEFAULT_RUNLEVEL" /etc/init/rc-sysinit.conf  
env DEFAULT_RUNLEVEL=2  
eval "$(sed -nre 's/^[^#][^:]*:([0-6sS]):initdefault:./DEFAULT_RUNLEVEL  
="\1";/p' /etc/inittab || true)"  
    DEFAULT_RUNLEVEL="${ARG}"  
    [ -n "${FROM_SINGLE_USER_MODE}" ] || DEFAULT_RUNLEVEL=S  
    telinit "${DEFAULT_RUNLEVEL}"  
root@mazharrasyad:~#
```

3. Ketik perintah berikut ini untuk mengetahui current run level :

```
root@mazharrasyad: ~  
root@mazharrasyad:~# runlevel  
N 5  
root@mazharrasyad:~#
```

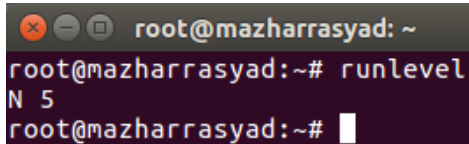

Lab 2.4 Membangun Kernel Baru

1. Ketik **sudo su** - untuk Login sebagai root



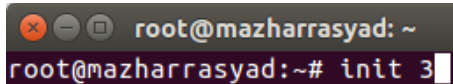
```
root@mazharrasyad: ~  
mazharrasyad@mazharrasyad:~$ sudo su -  
[sudo] password for mazharrasyad:  
root@mazharrasyad:~#
```

2. Periksa current run level



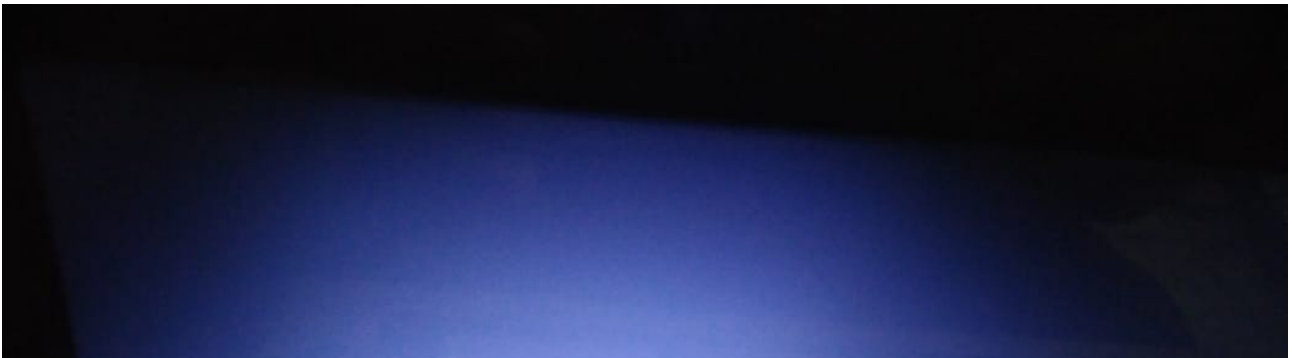
```
root@mazharrasyad: ~  
root@mazharrasyad:~# runlevel  
N 5  
root@mazharrasyad:~#
```

3. Berpindah / beralih ke run level 3 dengan perintah berikut :



```
root@mazharrasyad: ~  
root@mazharrasyad:~# init 3
```

- Proses sebelum beralih ke init 3



- Akan tampil tampilan berikut dan diharuskan login

```

/dev/sda6: clean, 694677/6250496 files, 14360022/24999680 blocks
[ OK ] Started Clean up any mess left by Odn-up.
Starting Nameserver information manager...
[ OK ] Started Nameserver information manager.
[ OK ] Reached target Network (Pre).
[ OK ] Started udev Kernel Device Manager.
Starting Plymouth Boot Screen...
[ OK ] Started Apply Kernel Variables.
[ OK ] Started Tell Plymouth To Write Out Runtime Data.
Mounting Arbitrary Executable File Formats File System...
[ OK ] Started Create Volatile Files and Directories.
Starting Network Time Synchronization...
Starting Update UTMP about System Boot/Shutdown...
[ OK ] Started Update UTMP about System Boot/Shutdown.
[ OK ] Created slice system-systemd\x2dbacklight.slice.
Starting Load/Save Screen Backlight Brightness of backlight:acpi_video0...
[ OK ] Started Load/Save Screen Backlight Brightness of backlight:acpi_video0.
Starting Load/Save Screen Backlight Brightness of backlight:intel_backlight...
[ OK ] Started Load/Save Screen Backlight Brightness of backlight:intel_backlight.
[ OK ] Mounted Arbitrary Executable File Formats File System.
[ OK ] Started Enable support for additional executable binary formats.
[ OK ] Started Network Time Synchronization.
[ OK ] Reached target System Time Synchronized.
[ OK ] Started Set console font and keymap.
[ OK ] Created slice system-getty.slice.

Ubuntu 16.04.5 LTS mazharrasyad tty1
mazharrasyad login: _

```

- Login dengan user yang tersedia

```

[ OK ] Created slice system-systemd\x2dbacklight.slice.
Starting Load/Save Screen Backlight Brightness of backlight:acpi_video0...
[ OK ] Started Load/Save Screen Backlight Brightness of backlight:acpi_video0.
Starting Load/Save Screen Backlight Brightness of backlight:intel_backlight...
[ OK ] Started Load/Save Screen Backlight Brightness of backlight:intel_backlight.
[ OK ] Mounted Arbitrary Executable File Formats File System.
[ OK ] Started Enable support for additional executable binary formats.
[ OK ] Started Network Time Synchronization.
[ OK ] Reached target System Time Synchronized.
[ OK ] Started Set console font and keymap.
[ OK ] Created slice system-getty.slice.

Ubuntu 16.04.5 LTS mazharrasyad tty1
mazharrasyad login: mazharrasyad
mazharrasyad
Password:
Last login: Thu Nov  1 17:11:47 WIB 2018 on tty1
Welcome to Ubuntu 16.04.5 LTS (GNU/Linux 4.18.16 x86_64)

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

3 packages can be updated.
3 updates are security updates.

mazharrasyad@mazharrasyad:~$ _

```

- Memeriksa default runlevel

```
[ OK ] Reached target System Time Synchronized.  
[ OK ] Started Set console font and keymap.  
[ OK ] Created slice system-getty.slice.  
  
Ubuntu 16.04.5 LTS mazharrasyad tty1  
mazharrasyad login: mazharrasyad  
mazharrasyad  
Password:  
Last login: Thu Nov  1 17:11:47 WIB 2018 on tty1  
Welcome to Ubuntu 16.04.5 LTS (GNU/Linux 4.18.16 x86_64)  
  
* Documentation:  https://help.ubuntu.com  
* Management:    https://landscape.canonical.com  
* Support:        https://ubuntu.com/advantage  
  
3 packages can be updated.  
3 updates are security updates.  
  
mazharrasyad@mazharrasyad:~$ runlevel  
5 3  
mazharrasyad@mazharrasyad:~$ _
```

Manajemen Service

Modul merupakan **fungsi-fungsi yang digunakan dalam kernel**.

Berikut merupakan **implementasi dari modul** dan kernel yang digunakan kali ini adalah **linux-4.18.16** :

Lab 2.5 Menampilkan Daftar Service

1. Login sebagai user root

```
root@mazharrasyad: ~
mazharrasyad@mazharrasyad:~$ sudo su -
[sudo] password for mazharrasyad:
root@mazharrasyad:~#
```

2. Ketik perintah berikut ini dan amati apakah terdapat service 'cron' atau 'crond' ?

```
root@mazharrasyad: ~
root@mazharrasyad:~# sysv-rc-conf -list | grep ^cron
cron          2:on         3:on         4:on         5:on
root@mazharrasyad:~#
```

3. Lihat isi direktori berikut ini, amati apakah terdapat startup script atau konfigurasi service 'cron' atau 'crond' ?:

```
root@mazharrasyad: ~
root@mazharrasyad:~# ls /etc/init/ | grep ^cron
cron.conf
root@mazharrasyad:~#
```


Lab 2.6 Manajemen Service

1. Login sebagai user root

```
root@mazharrasyad: ~
mazharrasyad@mazharrasyad:~$ sudo su -
[sudo] password for mazharrasyad:
root@mazharrasyad:~#
```

2. Cobalah instal aplikasi web server apache dengan perintah berikut ini :

```
root@mazharrasyad: ~
root@mazharrasyad:~# apt-get install apache2
Reading package lists... Done
Building dependency tree
Reading state information... Done
apache2 is already the newest version (2.4.18-2ubuntu3.9).
The following packages were automatically installed and are no longer required:
  aria2 libc-ares2 linux-headers-4.15.0-33 linux-headers-4.15.0-33-generic
  linux-image-4.15.0-33-generic linux-modules-4.15.0-33-generic
  linux-modules-extra-4.15.0-33-generic
Use 'apt autoremove' to remove them.
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
root@mazharrasyad:~#
```

3. Periksalah current run level

```
root@mazharrasyad: ~
root@mazharrasyad:~# runlevel
N 5
root@mazharrasyad:~#
```

4. Periksalah apakah service apache2/httpd akan selalu diaktifkan saat boot ?, gunakan perintah berikut :

```
root@mazharrasyad: ~
root@mazharrasyad:~# ls /etc/rc5.d/
K01apache2
K01apache-htcacheclean
README
S01appport
S01binfmt-support
S01rsyslog
S01unattended-upgrades
S01uuidd
S02acpid
S02anacron
S02cron
S02dbus
S02irqbalance
S02kerneloops
S02mysql
S02postgresql
S02rsync
S02speech-dispatcher
S02ssh
S02sysstat
S02thermald
S02whoopsie
S03avahi-daemon
S03bluetooth
S03lightdm
S04cups
S04cups-browsed
S04saned
S05grub-common
S05ondemand
S05plymouth
S05rc.local
root@mazharrasyad:~#
```


5. Pastikan agar service apache2/httpd akan selalu diaktifkan saat boot, gunakan perintah berikut ini:

```
root@mazharrasyad: ~  
root@mazharrasyad:~# update-rc.d apache2 enable  
root@mazharrasyad:~#  
  
root@mazharrasyad: ~  
root@mazharrasyad:~# ls /etc/rc5.d/  
K01apache-htcacheclean  S03acpid      S03rsync      S04lightdm  
README                 S03anacron    S03speech-dispatcher S05cups  
S01apport              S03cron       S03ssh        S05cups-browsed  
S01binfmt-support      S03dbus       S03sysstat    S05saned  
S01rsyslog             S03irqbalance S03thermald   S06grub-common  
S01unattended-upgrades S03kerneloops S03whoopsie   S06ondemand  
S01uuidd               S03mysql      S04avahi-daemon S06plymouth  
S02apache2            S03postgresql S04bluetooth  S06rc.local  
root@mazharrasyad:~#
```

Lab 2.7 Start/Stop/Restart/Status service

1. Login sebagai user root

```
root@mazharrasyad: ~  
mazharrasyad@mazharrasyad:~$ sudo su -  
[sudo] password for mazharrasyad:  
root@mazharrasyad:~#
```

2. Matikan service apache2/httpd, gunakan perintah berikut ini :

```
root@mazharrasyad:~# service apache2 stop  
root@mazharrasyad:~#
```

3. Nyalakan kembali service apache2/httpd, gunakan perintah berikut ini :

```
root@mazharrasyad:~# service apache2 start  
root@mazharrasyad:~#
```

4. Periksa status service apache2/httpd, gunakan perintah berikut ini :

```
root@mazharrasyad:~#  
● apache2.service - LSB: Apache2 web server  
   Loaded: loaded (/etc/init.d/apache2; bad; vendor preset: enabled)  
   Drop-In: /lib/systemd/system/apache2.service.d  
            └─apache2-systemd.conf  
   Active: active (running) since Jum 2018-11-02 06:22:24 WIB; 15s ago  
     Docs: man:systemd-sysv-generator(8)  
  Process: 5110 ExecStop=/etc/init.d/apache2 stop (code=exited, status=0/SUCCESS)  
  Process: 5187 ExecStart=/etc/init.d/apache2 start (code=exited, status=0/SUCCESS)  
   CGroup: /system.slice/apache2.service  
           └─5202 /usr/sbin/apache2 -k start  
             └─5205 /usr/sbin/apache2 -k start  
               └─5206 /usr/sbin/apache2 -k start  
                 └─5207 /usr/sbin/apache2 -k start  
                   └─5208 /usr/sbin/apache2 -k start  
                     └─5209 /usr/sbin/apache2 -k start  
  
Nov 02 06:22:22 mazharrasyad systemd[1]: Starting LSB: Apache2 web server...  
Nov 02 06:22:22 mazharrasyad apache2[5187]: * Starting Apache httpd web server  
Nov 02 06:22:23 mazharrasyad apache2[5187]: AH00558: apache2: Could not reliably  
Nov 02 06:22:24 mazharrasyad apache2[5187]: *  
Nov 02 06:22:24 mazharrasyad systemd[1]: Started LSB: Apache2 web server.  
lines 1-21/21 (END)
```

5. Restart service apache2/httpd, gunakan perintah berikut ini :

```
root@mazharrasyad:~# service apache2 restart  
root@mazharrasyad:~#
```

Lab 2.8 Mengenal upstart (event-based init daemon)

1. Login sebagai user root

```
root@mazharrasyad: ~
mazharrasyad@mazharrasyad:~$ sudo su -
[sudo] password for mazharrasyad:
root@mazharrasyad:~#
```

2. Ketik perintah berikut , untuk menampilkan daftar service :

```
root@mazharrasyad:~# systemctl list-units --type service --all
UNIT                                LOAD    ACTIVE SUB    DESCRIPTION
accounts-daemon.service            loaded active running Accounts Service
acpid.service                      loaded active running ACPI event daemon
alsa-restore.service               loaded active exited Save/Restore Sound Card
alsa-state.service                 loaded inactive dead    Manage Sound Card State
anacron.service                    loaded inactive dead    Run anacron jobs
apache2.service                    loaded inactive dead    LSB: Apache2 web server
● apparmor.service                 loaded failed failed    LSB: AppArmor initializa
appport.service                    loaded active exited  LSB: automatic crash rep
```

```
root@mazharrasyad:~#
whoopsie.service                   loaded active running crash report submission
wpa_supplicant.service              loaded active running WPA supplicant

LOAD    = Reflects whether the unit definition was properly loaded.
ACTIVE  = The high-level unit activation state, i.e. generalization of SUB.
SUB     = The low-level unit activation state, values depend on unit type.

110 loaded units listed.
To show all installed unit files use 'systemctl list-unit-files'.
lines 110-118/118 (END)
```

3. Pilihlah salah satu service yang dalam kondisi stop, lalu aktifkan dengan perintah :

```
root@mazharrasyad:~# systemctl list-units --type service --all
UNIT                                LOAD    ACTIVE SUB    DESCRIPTION
accounts-daemon.service            loaded active running Accounts Service
acpid.service                      loaded active running ACPI event daemon
alsa-restore.service               loaded active exited Save/Restore Sound Card
alsa-state.service                 loaded inactive dead    Manage Sound Card State
anacron.service                    loaded inactive dead    Run anacron jobs
apache2.service                    loaded inactive dead    LSB: Apache2 web server
● apparmor.service                 loaded failed failed    LSB: AppArmor initializa
appport.service                    loaded active exited  LSB: automatic crash rep

root@mazharrasyad:~# systemctl start apache2.service
root@mazharrasyad:~#
```

```

root@mazharrasyad: ~
root@mazharrasyad:~# systemctl list-units --type service --all
UNIT                                LOAD    ACTIVE SUB    DESCRIPTION
accounts-daemon.service            loaded active running Accounts Service
acpid.service                      loaded active running ACPI event daemon
alsa-restore.service               loaded active exited Save/Restore Sound Card
alsa-state.service                 loaded inactive dead    Manage Sound Card State
anacron.service                    loaded inactive dead    Run anacron jobs
apache2.service                    loaded active running LSB: Apache2 web server
● apparmor.service                 loaded failed failed    LSB: AppArmor initializa
appport.service                    loaded active exited  LSB: automatic crash rep

```

4. Buatlah konfigurasi service berikut ini dengan nama service 'xcoba' dan nama file konfigurasi service nya 'xcoba.conf' disimpan dalam direktori /etc/init, dengan isi file sebagai berikut:

```

root@mazharrasyad: /usr/bin
root@mazharrasyad:~# cd /usr/bin
root@mazharrasyad:/usr/bin#

```

```

root@mazharrasyad: /usr/bin
root@mazharrasyad:/usr/bin# nano xcobastart.sh

```

```

GNU nano 2.5.3      File: xcobastart.sh      Modified
#!/bin/sh -
echo "Start: $(date)" >> /var/log/xcoba.log
sleep 1000

^G Get Help  ^O Write Out ^W Where Is  ^K Cut Text  ^J Justify   ^C Cur Pos
^X Exit      ^R Read File ^\ Replace   ^U Uncut Text ^T To Linter ^_ Go To Line

```

```

root@mazharrasyad: /usr/bin
root@mazharrasyad:/usr/bin# nano xcobastart.sh
root@mazharrasyad:/usr/bin#

```

```

root@mazharrasyad: /usr/bin
root@mazharrasyad:/usr/bin# nano xcobastop.sh

```

```

GNU nano 2.5.3      File: xcobastop.sh      Modified
#!/bin/sh -
echo "Stop: $(date)" >> /var/log/xcoba.log

^G Get Help  ^O Write Out ^W Where Is  ^K Cut Text  ^J Justify   ^C Cur Pos
^X Exit      ^R Read File ^\ Replace   ^U Uncut Text ^T To Linter ^_ Go To Line

```

```
root@mazharrasyad: /usr/bin
root@mazharrasyad: /usr/bin# nano xcobastop.sh
root@mazharrasyad: /usr/bin#
```

```
root@mazharrasyad: /usr/bin
root@mazharrasyad: /usr/bin# ls xcobast*
xcobastart.sh  xcobastop.sh
root@mazharrasyad: /usr/bin#
```

```
root@mazharrasyad: /usr/bin
root@mazharrasyad: /usr/bin# chmod +x xcobast*
root@mazharrasyad: /usr/bin#
```

```
root@mazharrasyad: /usr/bin
root@mazharrasyad: /usr/bin# ls xcobast*
xcobastart.sh  xcobastop.sh
root@mazharrasyad: /usr/bin#
```

```
root@mazharrasyad: /etc/systemd/system
root@mazharrasyad: /usr/bin# cd /etc/systemd/system/
root@mazharrasyad: /etc/systemd/system#
```

```
root@mazharrasyad: /etc/systemd/system
root@mazharrasyad: /etc/systemd/system# nano xcoba.service
```

```
root@mazharrasyad: /etc/systemd/system
GNU nano 2.5.3      File: xcoba.service      Modified

[Unit]
Author=Mahasiswa STT NF
Description=Service Xcoba
After=network.target

[Service]
Type=simple
User=root
ExecStart=/usr/bin/xcobastart.sh
ExecStop=/usr/bin/xcobastop.sh
Restart=on-abort

[Install]
WantedBy=multi-user.target

^G Get Help  ^O Write Out  ^W Where Is  ^K Cut Text  ^J Justify   ^C Cur Pos
^X Exit      ^R Read File  ^\ Replace   ^U Uncut Text ^T To Spell  ^_ Go To Line
```

```
root@mazharrasyad: /etc/systemd/system
root@mazharrasyad: /etc/systemd/system# nano xcoba.service
root@mazharrasyad: /etc/systemd/system#
```

```
root@mazharrasyad: ~
root@mazharrasyad: /etc/systemd/system# cd
root@mazharrasyad: ~#
```


5. Jalankan kembali perintah berikut untuk melihat daftar service :

```
root@mazharrasyad: ~  
root@mazharrasyad:~# systemctl list-units --type service --all | grep xcoba  
root@mazharrasyad:~#  
  
root@mazharrasyad: ~  
root@mazharrasyad:~# systemctl daemon-reload  
root@mazharrasyad:~#  
  
root@mazharrasyad: ~  
root@mazharrasyad:~# systemctl list-units --type service --all | grep xcoba  
xcoba.service                                loaded    active    running  
Service Xcoba  
root@mazharrasyad:~#
```

6. Aktifkan service xcoba :

```
root@mazharrasyad: ~  
root@mazharrasyad:~# systemctl start xcoba.service  
root@mazharrasyad:~#
```

7. Lihat status service xcoba :

```
root@mazharrasyad: ~  
root@mazharrasyad:~# systemctl status xcoba.service  
● xcoba.service - Service Xcoba  
   Loaded: loaded (/etc/systemd/system/xcoba.service; disabled; vendor preset: e  
   Active: active (running) since Sab 2018-11-03 10:41:05 WIB; 20s ago  
 Main PID: 14002 (xcobastart.sh)  
   CGroup: /system.slice/xcoba.service  
           └─14002 /bin/sh - /usr/bin/xcobastart.sh  
             └─14004 sleep 1000  
  
Nov 03 10:41:05 mazharrasyad systemd[1]: Started Service Xcoba.  
lines 1-9/9 (END)
```

8. Restart service xcoba :

```
root@mazharrasyad: ~  
root@mazharrasyad:~# systemctl restart xcoba.service  
root@mazharrasyad:~#
```

9. Matikan service xcoba :

```
root@mazharrasyad: ~  
root@mazharrasyad:~# systemctl stop xcoba.service  
root@mazharrasyad:~#
```

10. Lihat status service xcoba :

```
root@mazharrasyad: ~  
root@mazharrasyad:~# systemctl status xcoba.service  
● xcoba.service - Service Xcoba  
   Loaded: loaded (/etc/systemd/system/xcoba.service; disabled; vendor preset: e  
   Active: inactive (dead)  
  
Nov 03 10:42:55 mazharrasyad systemd[1]: [/etc/systemd/system/xcoba.service:2] U  
Nov 03 10:42:56 mazharrasyad systemd[1]: [/etc/systemd/system/xcoba.service:2] U  
Nov 03 10:43:04 mazharrasyad systemd[1]: [/etc/systemd/system/xcoba.service:2] U  
Nov 03 10:43:04 mazharrasyad systemd[1]: Stopped Service Xcoba.  
Nov 03 10:43:04 mazharrasyad systemd[1]: Started Service Xcoba.  
Nov 03 10:43:11 mazharrasyad systemd[1]: Stopping Service Xcoba...  
Nov 03 10:43:11 mazharrasyad systemd[1]: Stopped Service Xcoba.  
Nov 03 10:43:11 mazharrasyad systemd[1]: [/etc/systemd/system/xcoba.service:2] U  
Nov 03 10:43:11 mazharrasyad systemd[1]: [/etc/systemd/system/xcoba.service:2] U  
Nov 03 10:43:12 mazharrasyad systemd[1]: [/etc/systemd/system/xcoba.service:2] U  
lines 1-14/14 (END)
```

----- Selesai -----

Referensi

- Modul praktikum Administrasi sistem dan jaringan – STT NF (Disusun oleh: Henry Saptono, S.Si, M.Kom)