

```

@ahmed-virtual-machine:~$ sudo apt update && sudo apt upgrade -y
] password for ahmed:
1 http://eg.archive.ubuntu.com/ubuntu focal InRelease
2 http://eg.archive.ubuntu.com/ubuntu focal-updates InRelease
3 http://security.ubuntu.com/ubuntu focal-security InRelease
4 http://eg.archive.ubuntu.com/ubuntu focal-backports InRelease
Reading package lists... Done
Building dependency tree
Reading state information... Done
Some packages can be upgraded. Run 'apt list --upgradable' to see them.
Reading package lists... Done
Building dependency tree
Reading state information... Done
Calculating upgrade... Done
The following packages will be upgraded:
  alsa-ucm-conf ghostscript ghostscript-x gir1.2-mutter-6 gir1.2-udisks-2.0 gnome-control-center-faces
  gnome-shell-extension-desktop-icons libasound2 libasound2-data libdrm-common libdrm-intel1 libdrm-nouveau2
  libdrm-radeon1 libdrm2 libegl-mesa0 libegl1-mesa-dri libglapi-mesa libglx-mesa0 libgs9 libgs9-common libllvm12 libmbim-glib
  libmutter-6-0 libnautilus-extension1a libnetplan0 libnss-systemd libpam-modules libpam-systemd libpam0g libprocps8
  libpulse-mainloop-glib0 libpulse0 libpulsedsp libsystemd0 libudisks2-0 libxatracker2 linux-base linux-firmware
  mesa-vulkan-drivers nautilus nautilus-data netplan.io openssl procps pulseaudio pulseaudio-module-bluetooth
  python-apt-common python3-apt python3-software-properties python3-update-manager rsync software-properties-gtk
  systemd systemd-sysv systemd-timesyncd thermald ubuntu-advantage-tools update-manager-core update-notifier
  update-notifier-common wget
34 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
Need to get 165 MB/200 MB of archives.
After this operation, 20.9 MB of additional disk space will be used.
Get:1 http://eg.archive.ubuntu.com/ubuntu focal-updates/main amd64 rsync amd64 3.1.3-8ubuntu0.1 [147 kB]
Get:2 http://eg.archive.ubuntu.com/ubuntu focal-updates/main amd64 libpulse-mainloop-glib0 amd64 1:13.99.1-1ubuntu0.1 [14.7 kB]
Get:3 http://eg.archive.ubuntu.com/ubuntu focal-updates/main amd64 libpulsedsp amd64 1:13.99.1-1ubuntu0.1 [14.7 kB]
Get:4 http://eg.archive.ubuntu.com/ubuntu focal-updates/main amd64 pulseaudio-utils amd64 1:13.99.1-1ubuntu0.1 [14.7 kB]
Get:5 http://eg.archive.ubuntu.com/ubuntu focal-updates/main amd64 pulseaudio-module-bluetooth amd64 1:13.99.1-1ubuntu0.1 [14.7 kB]
Get:6 http://eg.archive.ubuntu.com/ubuntu focal-updates/main amd64 pulseaudio amd64 1:13.99.1-1ubuntu0.1 [14.7 kB]
Get:7 http://eg.archive.ubuntu.com/ubuntu focal-updates/main amd64 libpulse0 amd64 1:13.99.1-1ubuntu0.1 [14.7 kB]
Get:8 http://eg.archive.ubuntu.com/ubuntu focal-updates/main amd64 libatopology2 amd64 1:2.0.0-1ubuntu0.1 [14.7 kB]
Get:9 http://eg.archive.ubuntu.com/ubuntu focal-updates/main amd64 libasound2 amd64 1.2.8-1ubuntu0.1 [14.7 kB]
Get:10 http://eg.archive.ubuntu.com/ubuntu focal-updates/main amd64 libasound2-data all 1.2.8-1ubuntu0.1 [14.7 kB]
Get:11 http://eg.archive.ubuntu.com/ubuntu focal-updates/main amd64 python-apt-common all 2.0.0ubuntu0.1 [14.7 kB]
Get:12 http://eg.archive.ubuntu.com/ubuntu focal-updates/main amd64 python3-apt amd64 2.0.0ubuntu0.1 [14.7 kB]
Get:13 http://eg.archive.ubuntu.com/ubuntu focal-updates/main amd64 update-manager all 1:20.04.0ubuntu0.1 [14.7 kB]
Get:14 http://eg.archive.ubuntu.com/ubuntu focal-updates/main amd64 update-manager-core all 1:20.04.0ubuntu0.1 [14.7 kB]
Get:15 http://eg.archive.ubuntu.com/ubuntu focal-updates/main amd64 python3-update-manager amd64 1:20.04.0ubuntu0.1 [14.7 kB]
Get:16 http://eg.archive.ubuntu.com/ubuntu focal-updates/main amd64 ubuntu-advantage-tools amd64 0.103-0ubuntu0.1 [14.7 kB]
Get:17 http://eg.archive.ubuntu.com/ubuntu focal-updates/main amd64 update-notifier amd64 3.19.0-1ubuntu0.1 [14.7 kB]
Get:18 http://eg.archive.ubuntu.com/ubuntu focal-updates/main amd64 update-notifier-common all 3.19.0-1ubuntu0.1 [14.7 kB]
Get:19 http://eg.archive.ubuntu.com/ubuntu focal-updates/main amd64 libprocps8 amd64 2:3.3.16-1ubuntu0.1 [14.7 kB]
Get:20 http://eg.archive.ubuntu.com/ubuntu focal-updates/main amd64 procps amd64 2:3.3.16-1ubuntu0.1 [14.7 kB]
Get:21 http://eg.archive.ubuntu.com/ubuntu focal-updates/main amd64 libnetplan0 amd64 0.103-0ubuntu0.1 [14.7 kB]
Get:22 http://eg.archive.ubuntu.com/ubuntu focal-updates/main amd64 libssl1.1 amd64 1.1.1f-1ubuntu0.1 [14.7 kB]
Get:23 http://eg.archive.ubuntu.com/ubuntu focal-updates/main amd64 netplan.io amd64 0.103-0ubuntu0.1 [14.7 kB]
Get:24 http://eg.archive.ubuntu.com/ubuntu focal-updates/main amd64 openssl amd64 1.1.1f-1ubuntu0.1 [14.7 kB]
Get:25 http://eg.archive.ubuntu.com/ubuntu focal-updates/main amd64 ufw all 0.36-6ubuntu1 [147 kB]
Get:26 http://eg.archive.ubuntu.com/ubuntu focal-updates/main amd64 wget amd64 1.20.3-1ubuntu2 [14.7 kB]
Get:27 http://eg.archive.ubuntu.com/ubuntu focal-updates/main amd64 alsa-ucm-conf all 1.2.2-1ubuntu0.1 [14.7 kB]

```



```
101: Network is unreachable) Cannot initiate the connection to eg.archive.ubuntu.com/ubuntu/pool/main/t/thermald/thermald_1.9.1-1ubuntu0.6_amd64.deb Cannot i
m:80 (2001:67c:1360:8001::24). - connect (101: Network is unreachable) Cannot initiate the connection to eg.archive.ubuntu
.189.88.152 80]
E: Failed to fetch http://eg.archive.ubuntu.com/ubuntu/pool/main/u/udisks2/udisks2_2.8.4-1ubuntu2_amd64.deb Cannot initia
Network is unreachable) Cannot initiate the connection to eg.archive.ubuntu.com:80 (2001:67c:1562::18). - connect (101: N
(2001:67c:1360:8001::24). - connect (101: Network is unreachable) Cannot initiate the connection to eg.archive.ubuntu.com
.88.152 80]
E: Failed to fetch http://eg.archive.ubuntu.com/ubuntu/pool/main/m/mutter/mutter_3.36.9-0ubuntu0.20.04.2_amd64.deb Cannot i
ct (101: Network is unreachable) Cannot initiate the connection to eg.archive.ubuntu.com:80 (2001:67c:1562::18). - connect (
u.com:80 (2001:67c:1360:8001::24). - connect (101: Network is unreachable) Cannot initiate the connection to eg.archive.ubun
: 91.189.88.152 80]
E: Unable to fetch some archives, maybe run apt-get update or try with --fix-missing?
ahmed@ahmed-virtual-machine:~$ sudo apt install build-essential libncurses-dev libssl-dev libelf-dev bison flex -y
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  dpkg-dev fakeroot libalgorithm-diff-perl libalgorithm-diff-xs-perl libalgorithm-merge-perl libfakeroot libfl-dev libfl2
  libsigsegv2 libssl1.1 m4 make zlib1g-dev
Suggested packages:
  bison-doc debian-keyring flex-doc ncurses-doc libssl-doc m4-doc make-doc
The following NEW packages will be installed:
  bison build-essential dpkg-dev fakeroot flex libalgorithm-diff-perl libalgorithm-diff-xs-perl libalgorithm-merge-perl
  libelf-dev libfakeroot libfl-dev libncurses-dev libsigsegv2 libssl-dev m4 make zlib1g-dev
The following packages will be upgraded:
  libssl1.1
1 upgraded, 18 newly installed, 0 to remove and 83 not upgraded.
Need to get 4,344 kB/5,666 kB of archives.
After this operation, 18.1 MB of additional disk space will be used.
Err:1 http://eg.archive.ubuntu.com/ubuntu focal/main amd64 libsigsegv2 amd64 2.12-2
Temporary failure resolving 'eg.archive.ubuntu.com'
20% [Working]
```

```
http://eg.archive.ubuntu.com/ubuntu focal/main amd64 libalgorithm-diff-perl all 1.19.03-
58.6 kB in 9min 56s (98 B/s)
E: Failed to fetch http://eg.archive.ubuntu.com/ubuntu/pool/main/libl/libsigsegv/libsigsegv2_2.
E: Failed to fetch http://eg.archive.ubuntu.com/ubuntu/pool/main/m/m4/m4_1.4.18-4_amd64.deb Te
E: Failed to fetch http://eg.archive.ubuntu.com/ubuntu/pool/main/f/flex/flex_2.6.4-6.2_amd64.d
E: Failed to fetch http://eg.archive.ubuntu.com/ubuntu/pool/main/b/bison/bison_3.5.1+dfsg-1_am
E: Failed to fetch http://eg.archive.ubuntu.com/ubuntu/pool/main/m/make-dfsg/make_4.2.1-1.2_am
E: Failed to fetch http://eg.archive.ubuntu.com/ubuntu/pool/main/d/dpkg/dpkg-dev_1.19.7ubuntu3
E: Failed to fetch http://eg.archive.ubuntu.com/ubuntu/pool/main/b/build-essential/build-essen
E: Failed to fetch http://eg.archive.ubuntu.com/ubuntu/pool/main/f/fakeroot/libfakeroot_1.24-1
E: Failed to fetch http://eg.archive.ubuntu.com/ubuntu/pool/main/f/fakeroot/fakeroot_1.24-1_ar
E: Failed to fetch http://eg.archive.ubuntu.com/ubuntu/pool/main/liba/libalgorithm-diff-xs-pe
E: Failed to fetch http://eg.archive.ubuntu.com/ubuntu/pool/main/z/zlib/zlib1g-dev_1.2.11.dfsg
E: Failed to fetch http://eg.archive.ubuntu.com/ubuntu/pool/main/e/elfutils/libelf-dev_0.176-
E: Failed to fetch http://eg.archive.ubuntu.com/ubuntu/pool/main/f/flex/libfl-dev_2.6.4-6.2_amd6
E: Failed to fetch http://eg.archive.ubuntu.com/ubuntu/pool/main/n/ncurses/libncurses-dev_6.2
E: Failed to fetch http://eg.archive.ubuntu.com/ubuntu/pool/main/o/openssl/libssl-dev_1.1.1f-
E: Unable to fetch some archives, maybe run apt-get update or try with --fix-missing?
ahmed@ahmed-virtual-machine:~$ sudo apt install vim -y
[sudo] password for ahmed:
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  vim-runtime
Suggested packages:
  ctags vim-doc vim-scripts
The following NEW packages will be installed:
  vim vim-runtime
0 upgraded, 2 newly installed, 0 to remove and 84 not upgraded.
Need to get 7,114 kB of archives.
After this operation, 34,6 MB of additional disk space will be used.
0% [Working]
```



```
Setting up vim (2:8.1.2269-1ubuntu5.4) ...
update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/vim (vim) in
auto mode
update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/vimdiff (vimd
iff) in auto mode
update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/rvim (rvim) i
n auto mode
update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/rview (rview)
in auto mode
update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/vi (vi) in au
to mode
update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/view (view) i
n auto mode
update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/ex (ex) in au
to mode
Processing triggers for man-db (2.9.1-1) ...
ahmed@ahmed-virtual-machine:~$ sudo apt clean && sudo apt autoremove -y
Reading package lists... Done
Building dependency tree
Reading state information... Done
0 upgraded, 0 newly installed, 0 to remove and 84 not upgraded.
ahmed@ahmed-virtual-machine:~$
```

```
update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/vimdiff (vimd
auto mode
update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/vimdiff (vimd
iff) in auto mode
update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/rvim (rvim) i
n auto mode
update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/rview (rview)
in auto mode
update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/vi (vi) in au
to mode
update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/view (view) i
n auto mode
update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/ex (ex) in au
to mode
Processing triggers for man-db (2.9.1-1) ...
ahmed@ahmed-virtual-machine:~$ sudo apt clean && sudo apt autoremove -y
Reading package lists... Done
Building dependency tree
Reading state information... Done
0 upgraded, 0 newly installed, 0 to remove and 84 not upgraded.
ahmed@ahmed-virtual-machine:~$ wget -P ~/ https://cdn.kernel.org/pub/linux/kernel/v5.x/linux-5.8.1.tar.xz
--2021-12-30 18:23:11-- https://cdn.kernel.org/pub/linux/kernel/v5.x/linux-5.8.1.tar.xz
Resolving cdn.kernel.org (cdn.kernel.org)... 199.232.81.176, 2a04:4e42:54::432
Connecting to cdn.kernel.org (cdn.kernel.org)|199.232.81.176|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 114458544 (109M) [application/x-xz]
Saving to: '/home/ahmed/linux-5.8.1.tar.xz'
```

```
linux-5.8.1.tar.xz 3%[====>
linux-5.8.1.tar.xz 33%[=====>
```



```
linux-5.8.1/virt/
linux-5.8.1/virt/Makefile
linux-5.8.1/virt/kvm/
linux-5.8.1/virt/kvm/Kconfig
linux-5.8.1/virt/kvm/async_pf.c
linux-5.8.1/virt/kvm/async_pf.h
linux-5.8.1/virt/kvm/coalesced_mmio.c
linux-5.8.1/virt/kvm/coalesced_mmio.h
linux-5.8.1/virt/kvm/eventfd.c
linux-5.8.1/virt/kvm/irqchip.c
linux-5.8.1/virt/kvm/kvm_main.c
linux-5.8.1/virt/kvm/vfio.c
linux-5.8.1/virt/kvm/vfio.h
linux-5.8.1/virt/lib/
linux-5.8.1/virt/lib/Kconfig
linux-5.8.1/virt/lib/Makefile
linux-5.8.1/virt/lib/irqbypass.c
ahmed@ahmed-virtual-machine:~$ uname -r
5.11.0-43-generic
ahmed@ahmed-virtual-machine:~$ mkdir identitycd ~/linux-5.8.1/
mkdir: cannot create directory '/home/ahmed/linux-5.8.1/': File exists
ahmed@ahmed-virtual-machine:~$
```

```
ahmed@ahmed-virtual-machine:~$ nano identity/identity.c
```

Use "fg" to return to nano.

```
[3]+ Stopped nano identity/identity.c
ahmed@ahmed-virtual-machine:~$ cd ~/linux-5.8.1/
ahmed@ahmed-virtual-machine:~/linux-5.8.1$ mkdir identity
ahmed@ahmed-virtual-machine:~/linux-5.8.1$ nano identity/identity.c
ahmed@ahmed-virtual-machine:~/linux-5.8.1$
```



```

c12:10: fatal error: linux/syscall.h: No such file or directory
2 | #include <linux/syscall.h>
    |
compilation terminated.
ahmed@ahmed-virtual-machine:~$ gcc m.c -o M
m.c:2:10: fatal error: linux/syscall.h: No such file or directory
2 | #include <linux/syscall.h>
    |
compilation terminated.
ahmed@ahmed-virtual-machine:~$ nano identity/identity.c

Use "fg" to return to nano.

[3]+ Stopped nano identity/identity.c
ahmed@ahmed-virtual-machine:~$ cd ~/linux-5.8.1/
ahmed@ahmed-virtual-machine:~/linux-5.8.1$ mkdir identity
ahmed@ahmed-virtual-machine:~/linux-5.8.1$ nano identity/identity.c
ahmed@ahmed-virtual-machine:~/linux-5.8.1$ nano identity/Makefile
ahmed@ahmed-virtual-machine:~/linux-5.8.1$ nano Makefile
ahmed@ahmed-virtual-machine:~/linux-5.8.1$ nano Makefile
ahmed@ahmed-virtual-machine:~/linux-5.8.1$ gedit Makefile
ahmed@ahmed-virtual-machine:~/linux-5.8.1$ kernel/ certs/ mm/ fs/ ipc/ security/ crypto/ block/ identity/
bash: kernel/: Is a directory
ahmed@ahmed-virtual-machine:~/linux-5.8.1$

```

```

Use "fg" to return to nano.

[3]+ Stopped nano identity/identity.c
ahmed@ahmed-virtual-machine:~$ cd ~/linux-5.8.1/
ahmed@ahmed-virtual-machine:~/linux-5.8.1$ mkdir identity
ahmed@ahmed-virtual-machine:~/linux-5.8.1$ nano identity/identity.c
ahmed@ahmed-virtual-machine:~/linux-5.8.1$ nano identity/Makefile
ahmed@ahmed-virtual-machine:~/linux-5.8.1$ nano Makefile
ahmed@ahmed-virtual-machine:~/linux-5.8.1$ nano Makefile
ahmed@ahmed-virtual-machine:~/linux-5.8.1$ gedit Makefile
ahmed@ahmed-virtual-machine:~/linux-5.8.1$ kernel/ certs/ mm/ fs/ ipc/ security/ crypto/ block/ identity/
bash: kernel/: Is a directory
ahmed@ahmed-virtual-machine:~/linux-5.8.1$ nano include/linux/syscalls.h
ahmed@ahmed-virtual-machine:~/linux-5.8.1$ 440 common identity sys_identity
440: command not found
ahmed@ahmed-virtual-machine:~/linux-5.8.1$ nano arch/x86/entry/syscalls/syscall_64.tbl
ahmed@ahmed-virtual-machine:~/linux-5.8.1$ 440 common identity sys_identity
440: command not found
ahmed@ahmed-virtual-machine:~/linux-5.8.1$ nano arch/x86/entry/syscalls/syscall_64.tbl
ahmed@ahmed-virtual-machine:~/linux-5.8.1$ make nenuconfig

Command 'make' not found, but can be installed with:

sudo apt install make # version 4.2.1-1.2, or
sudo apt install make-guile # version 4.2.1-1.2

ahmed@ahmed-virtual-machine:~/linux-5.8.1$ nproc
1
ahmed@ahmed-virtual-machine:~/linux-5.8.1$

```



```
? sudo apt install make # version 4.2.1-1.2, or
sudo apt install make-guile # version 4.2.1-1.2

ahmed@ahmed-virtual-machine:~/linux-5.8.1$ sudo make modules_install -j12
[sudo] password for ahmed:
sudo: make: command not found
ahmed@ahmed-virtual-machine:~/linux-5.8.1$ sudo make install -j12
sudo: make: command not found
ahmed@ahmed-virtual-machine:~/linux-5.8.1$ nproc
1
ahmed@ahmed-virtual-machine:~/linux-5.8.1$ make menuconfig

Command 'make' not found, but can be installed with:

sudo apt install make # version 4.2.1-1.2, or
sudo apt install make-guile # version 4.2.1-1.2

ahmed@ahmed-virtual-machine:~/linux-5.8.1$ sudo apt install make
Reading package lists... Done
Building dependency tree
Reading state information... Done
Suggested packages:
  make-doc
The following NEW packages will be installed:
  make
0 upgraded, 1 newly installed, 0 to remove and 84 not upgraded.
Need to get 162 kB of archives.
After this operation, 393 kB of additional disk space will be used.
Get:1 http://eg.archive.ubuntu.com/ubuntu focal/main amd64 make amd64 4.2.1-1.2 [162 kB]
Fetched 162 kB in 2s (96.8 kB/s)
Selecting previously unselected package make.
(Reading database ... 192355 files and directories currently installed.)
Preparing to unpack .../make_4.2.1-1.2_amd64.deb ...
Unpacking make (4.2.1-1.2) ...
Setting up make (4.2.1-1.2) ...
Processing triggers for man-db (2.9.1-1) ...
Progress: [1180%] [#####]
```

```
After this operation, 393 kB of additional disk space will be used.
Get:1 http://eg.archive.ubuntu.com/ubuntu focal/main amd64 make amd64 4.2.1-1.2 [162 kB]
Fetched 162 kB in 2s (96.8 kB/s)
Selecting previously unselected package make.
(Reading database ... 192355 files and directories currently installed.)
Preparing to unpack .../make_4.2.1-1.2_amd64.deb ...
Unpacking make (4.2.1-1.2) ...
Setting up make (4.2.1-1.2) ...
Processing triggers for man-db (2.9.1-1) ...
ahmed@ahmed-virtual-machine:~/linux-5.8.1$ make -j12
Makefile:1: *** empty variable name. Stop.
ahmed@ahmed-virtual-machine:~/linux-5.8.1$ sudo make modules_install -j12
Makefile:1: *** empty variable name. Stop.
ahmed@ahmed-virtual-machine:~/linux-5.8.1$ sudo make install -j12
Makefile:1: *** empty variable name. Stop.
ahmed@ahmed-virtual-machine:~/linux-5.8.1$ sudo update-grub
Sourcing file `/etc/default/grub'
Sourcing file `/etc/default/grub.d/init-select.cfg'
Generating grub configuration file ...
Found linux image: /boot/vmlinuz-5.11.0-43-generic
Found initrd image: /boot/initrd.img-5.11.0-43-generic
Found linux image: /boot/vmlinuz-5.11.0-27-generic
Found initrd image: /boot/initrd.img-5.11.0-27-generic
Found memtest86+ image: /boot/memtest86+.elf
Found memtest86+ image: /boot/memtest86+.bin
done
ahmed@ahmed-virtual-machine:~/linux-5.8.1$
```



```

Get: http://mirror.ubuntu.com/ubuntu focal/main amd64 make amd64 4.2.1-1.2 [162 kB]
Fetched 162 kB in 2s (96.8 kB/s)
Selecting previously unselected package make.
(Reading database ... 192355 files and directories currently installed.)
Preparing to unpack .../make_4.2.1-1.2_amd64.deb ...
Unpacking make (4.2.1-1.2) ...
Setting up make (4.2.1-1.2) ...
Processing triggers for man-db (2.9.1-1) ...
ahmed@ahmed-virtual-machine:~/linux-5.8.1$ make -j12
Makefile:1: *** empty variable name. Stop.
ahmed@ahmed-virtual-machine:~/linux-5.8.1$ sudo make modules_install -j12
Makefile:1: *** empty variable name. Stop.
ahmed@ahmed-virtual-machine:~/linux-5.8.1$ sudo make install -j12
Makefile:1: *** empty variable name. Stop.
ahmed@ahmed-virtual-machine:~/linux-5.8.1$ sudo update-grub
Sourcing file `/etc/default/grub'
Sourcing file `/etc/default/grub.d/init-select.cfg'
Generating grub configuration file ...
Found linux image: /boot/vmlinuz-5.11.0-43-generic
Found initrd image: /boot/initrd.img-5.11.0-43-generic
Found linux image: /boot/vmlinuz-5.11.0-27-generic
Found initrd image: /boot/initrd.img-5.11.0-27-generic
Found memtest86+ image: /boot/memtest86+.elf
Found memtest86+ image: /boot/memtest86+.bin
done
ahmed@ahmed-virtual-machine:~/linux-5.8.1$ uname -r
5.11.0-43-generic
ahmed@ahmed-virtual-machine:~/linux-5.8.1$ cd ~
ahmed@ahmed-virtual-machine:~$ nano report.c
ahmed@ahmed-virtual-machine:~$ gcc report.c -o report
ahmed@ahmed-virtual-machine:~$ ./report
Sorry, Jasper, Your system call appears to have failed.: Invalid argument
ahmed@ahmed-virtual-machine:~$ nano report.c
ahmed@ahmed-virtual-machine:~$ gcc report.c -o report
ahmed@ahmed-virtual-machine:~$ ./report
Sorry, Jasper, Your system call appears to have failed.: Invalid argument
ahmed@ahmed-virtual-machine:~$ nano report.c
ahmed@ahmed-virtual-machine:~$ nano report.c

```

```

[3]+ Stopped
ahmed@ahmed-virtual-machine:~$ nano identity/identity.c
ahmed@ahmed-virtual-machine:~/linux-5.8.1$ cd ~/linux-5.8.1/
ahmed@ahmed-virtual-machine:~/linux-5.8.1$ mkdir identity
ahmed@ahmed-virtual-machine:~/linux-5.8.1$ nano identity/identity.c
ahmed@ahmed-virtual-machine:~/linux-5.8.1$ nano identity/Makefile
ahmed@ahmed-virtual-machine:~/linux-5.8.1$ nano Makefile
ahmed@ahmed-virtual-machine:~/linux-5.8.1$ nano Makefile
ahmed@ahmed-virtual-machine:~/linux-5.8.1$ gedit Makefile
ahmed@ahmed-virtual-machine:~/linux-5.8.1$ kernel/ certs/ mm/ fs/ tpc/ security/ crypto/ block/ identity/
bash: kernel/: Is a directory
ahmed@ahmed-virtual-machine:~/linux-5.8.1$ nano include/linux/syscalls.h
440: command not found
ahmed@ahmed-virtual-machine:~/linux-5.8.1$ 440 common identity sys_identity
ahmed@ahmed-virtual-machine:~/linux-5.8.1$ nano arch/x86/entry/syscalls/syscall_64.tbl
440: command not found
ahmed@ahmed-virtual-machine:~/linux-5.8.1$ 440 common identity sys_identity
ahmed@ahmed-virtual-machine:~/linux-5.8.1$ nano arch/x86/entry/syscalls/syscall_64.tbl
ahmed@ahmed-virtual-machine:~/linux-5.8.1$ make menuconfig
Command 'make' not found, but can be installed with:
sudo apt install make # version 4.2.1-1.2, or
sudo apt install make-guile # version 4.2.1-1.2
I
ahmed@ahmed-virtual-machine:~/linux-5.8.1$ nproc
1
ahmed@ahmed-virtual-machine:~/linux-5.8.1$ make -j12
Command 'make' not found, but can be installed with:
sudo apt install make # version 4.2.1-1.2, or
sudo apt install make-guile # version 4.2.1-1.2
ahmed@ahmed-virtual-machine:~/linux-5.8.1$ sudo make modules_install -j12
[sudo] password for ahmed:
sudo: make: command not found
ahmed@ahmed-virtual-machine:~/linux-5.8.1$ sudo make install -j12
sudo: make: command not found
ahmed@ahmed-virtual-machine:~/linux-5.8.1$ nproc
1
ahmed@ahmed-virtual-machine:~/linux-5.8.1$ make menuconfig
Command 'make' not found, but can be installed with:
sudo apt install make # version 4.2.1-1.2, or
sudo apt install make-guile # version 4.2.1-1.2
ahmed@ahmed-virtual-machine:~/linux-5.8.1$ sudo apt install make
Reading package lists... Done
Building dependency tree
Reading state information... Done
Suggested packages:
make-doc

```



Terminal

ahmed@ahmed-virtual-machine:~/linux-5.8.1\$ make menuconfig

Command 'make' not found, but can be installed with:

sudo apt install make # version 4.2.1-1.2, or  
sudo apt install make-guile # version 4.2.1-1.2

ahmed@ahmed-virtual-machine:~/linux-5.8.1\$ sudo apt install make

Reading package lists... Done

Building dependency tree

Reading state information... Done

Suggested packages:

make-doc

The following NEW packages will be installed:

make

0 upgraded, 1 newly installed, 0 to remove and 84 not upgraded.

Need to get 162 kB of archives.

After this operation, 393 kB of additional disk space will be used.

Get:1 <http://eg.archive.ubuntu.com/ubuntu focal/main amd64 make amd64 4.2.1-1.2>

Fetched 162 kB in 2s (96.8 kB/s)

Selecting previously unselected package make.

(Reading database ... 192355 files and directories currently installed.)

Preparing to unpack .../make\_4.2.1-1.2\_amd64.deb ...

Unpacking make (4.2.1-1.2) ...

Setting up make (4.2.1-1.2) ...

Processing triggers for man-db (2.9.1-1) ...

ahmed@ahmed-virtual-machine:~/linux-5.8.1\$ make -j12

Makefile:1: \*\*\* empty variable name. Stop.

ahmed@ahmed-virtual-machine:~/linux-5.8.1\$ sudo make modules\_install -j12

Makefile:1: \*\*\* empty variable name. Stop.

ahmed@ahmed-virtual-machine:~/linux-5.8.1\$ sudo make install -j12

Makefile:1: \*\*\* empty variable name. Stop.

ahmed@ahmed-virtual-machine:~/linux-5.8.1\$ sudo update-grub

Sourcing file '/etc/default/grub'

Sourcing file '/etc/default/grub.d/init-select.cfg'

Generating grub configuration file ...

Found linux image: /boot/vmlinuz-5.11.0-43-generic

Found initrd image: /boot/initrd.img-5.11.0-43-generic

Found linux image: /boot/vmlinuz-5.11.0-27-generic

Found initrd image: /boot/initrd.img-5.11.0-27-generic

Found mentest86+ image: /boot/mentest86+.elf

Found mentest86+ image: /boot/mentest86+.bin

done

ahmed@ahmed-virtual-machine:~/linux-5.8.1\$ uname -r  
5.11.0-43-generic

ahmed@ahmed-virtual-machine:~/linux-5.8.1\$ cd ~

ahmed@ahmed-virtual-machine:~\$ nano report.c

ahmed@ahmed-virtual-machine:~\$ gcc report.c -o report

ahmed@ahmed-virtual-machine:~\$ ./report

Sorry, Jasper. Your system call appears to have failed.: Invalid argument

ahmed@ahmed-virtual-machine:~\$ nano report.c

ahmed@ahmed-virtual-machine:~\$ gcc report.c -o report

ahmed@ahmed-virtual-machine:~\$ ./report

Sorry, Jasper. Your system call appears to have failed.: Invalid argument

ahmed@ahmed-virtual-machine:~\$ nano report.c

ahmed@ahmed-virtual-machine:~\$ nano report.c