```
0 upgraded, 1 newly installed, 0 to remove and 157 not upgraded.
Need to get 25.2 kB of archives.
After this operation, 35.8 kB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://deb.debian.org/debian stable/main amd64 apt-transport-https all 2.6.1 [25.
2 kB]
Fetched 25.2 kB in 1s (36.3 kB/s)
Selecting previously unselected package apt-transport-https.
(Reading database ... 150522 files and directories currently installed.)
Preparing to unpack .../apt-transport-https_2.6.1_all.deb ...
Unpacking apt-transport-https (2.6.1) ...
Setting up apt-transport-https (2.6.1) ...
root@debian:/home/abolfazl# curl -fsSL https://download.docker.com/linux/debian/gpg | s
udo gpg --dearmor -o /usr/share/keyrings/docker-archive-keyring.gpg
root@debian:/home/abolfazl# echo "deb [arch=$(dpkg --print-architecture) signed-by=/usr
/share/keyrings/docker-archive-keyring.gpg] https://download.docker.com/linux/debian $(
lsb_release -cs) stable" | sudo tee /etc/apt/sources.list.d/docker.list > /dev/null
root@debian:/home/abolfazl# sudo apt update
Hit:1 http://security.debian.org/debian-security stable-security InRelease
Ign:2 https://download.docker.com/linux/debian bookworm InRelease
Hit:3 http://deb.debian.org/debian stable InRelease
Hit:4 http://deb.debian.org/debian stable-updates InRelease
Ign:2 https://download.docker.com/linux/debian bookworm InRelease
0% [Working]
```

```
on about this can be found online in the Re
ses/bookworm/amd64/release-notes/ch-informa
/abolfazl# sudo apt install docker-ce
```

```
N: Repository 'Debian bookworm' changed its 'firmware component' value from 'non-free'
to 'non-free-firmware'
N: More information about this can be found online in the Release notes at: https://www
.debian.org/releases/bookworm/amd64/release-notes/ch-information.html#non-free-split
root@debian:/home/abolfazl# sudo apt install docker-ce
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  containerd.io docker-buildx-plugin docker-ce-cli docker-ce-rootless-extras
  docker-compose-plugin git git-man iptables liberror-perl libip6tc2 libslirp0 patch
  pigz slirp4netns
Suggested packages:
  aufs-tools cgroupfs-mount | cgroup-lite git-daemon-run | git-daemon-sysvinit
  git-doc git-email git-gui gitk gitweb git-cvs git-mediawiki git-svn firewalld ed
  diffutils-doc
The following NEW packages will be installed:
  containerd.io docker-buildx-plugin docker-ce docker-ce-cli
  docker-ce-rootless-extras docker-compose-plugin git git-man iptables liberror-perl
  libip6tc2 libslirp0 patch pigz slirp4netns
0 upgraded, 15 newly installed, 0 to remove and 157 not upgraded.
Need to get 133 MB of archives.
After this operation, 492 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
```

```
The following NEW packages will be installed:
  containerd.io docker-buildx-plugin docker-ce docker-ce-cli
  docker-ce-rootless-extras docker-compose-plugin git git-man iptables liberror-perl
  libip6tc2 libslirp0 patch pigz slirp4netns
0 upgraded, 15 newly installed, 0 to remove and 157 not upgraded.
Need to get 133 MB of archives.
After this operation, 492 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://deb.debian.org/debian stable/main amd64 pigz amd64 2.6-1 [64.0 kB]
Get:2 http://deb.debian.org/debian stable/main amd64 libip6tc2 amd64 1.8.9-2 [19.4 kB]
Get:3 http://deb.debian.org/debian stable/main amd64 iptables amd64 1.8.9-2 [360 kB]
Get:4 http://deb.debian.org/debian stable/main amd64 liberror-perl all 0.17029-2 [29.0
kB]
Get:5 http://deb.debian.org/debian stable/main amd64 git-man all 1:2.39.5-0+deb12u1 [2,
054 kB]
Get:6 http://deb.debian.org/debian stable/main amd64 git amd64 1:2.39.5-0+deb12u1 [7,25
6 kB]
Get:7 https://download.docker.com/linux/debian bookworm/stable amd64 containerd.io amd6
4 1.7.22-1 [29.5 MB]
Get:8 http://deb.debian.org/debian stable/main amd64 libslirp0 amd64 4.7.0-1 [63.0 kB]
Get:9 http://deb.debian.org/debian stable/main amd64 patch amd64 2.7.6-7 [128 kB]
Get:10 http://deb.debian.org/debian stable/main amd64 slirp4netns amd64 1.2.0-1 [37.5 k
B]
18% [7 containerd.io 294 kB/29.5 MB 1%]
```

```
root@debian:/home/abolfazl# sudo apt install docker-ce
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  containerd.io docker-buildx-plugin docker-ce-cli docker-ce-rootless-extras
  docker-compose-plugin git git-man iptables liberror-perl libip6tc2 libslirp0 patch
  pigz slirp4netns
Suggested packages:
  aufs-tools cgroupfs-mount | cgroup-lite git-daemon-run | git-daemon-sysvinit
  git-doc git-email git-gui gitk gitweb git-cvs git-mediawiki git-svn firewalld ed
  diffutils-doc
The following NEW packages will be installed:
  containerd.io docker-buildx-plugin docker-ce docker-ce-cli
  docker-ce-rootless-extras docker-compose-plugin git git-man iptables liberror-perl
  libip6tc2 libslirp0 patch pigz slirp4netns
0 upgraded, 15 newly installed, 0 to remove and 157 not upgraded.
Need to get 123 MB/133 MB of archives.
After this operation, 492 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 https://download.docker.com/linux/debian bookworm/stable amd64 containerd.io amd6
4 1.7.22-1 [29.5 MB]
25% [1 containerd.io 11.1 MB/29.5 MB 38%]                     240 kB/s 7min 44s
25% [1 containerd.io 12.3 MB/29.5 MB 42%]                     240 kB/s 7min 40s
```

```
Setting up docker-ce-rootless-extras (5:27.3.1-1~debian.12~bookworm) ...
Setting up slirp4netns (1.2.0-1) ...
Setting up iptables (1.8.9-2) ...
update-alternatives: using /usr/sbin/iptables-legacy to provide /usr/sbin/iptables (ipt
ables) in auto mode
update-alternatives: using /usr/sbin/ip6tables-legacy to provide /usr/sbin/ip6tables (i
p6tables) in auto mode
update-alternatives: using /usr/sbin/iptables-nft to provide /usr/sbin/iptables (iptabl
es) in auto mode
update-alternatives: using /usr/sbin/ip6tables-nft to provide /usr/sbin/ip6tables (ip6t
ables) in auto mode
update-alternatives: using /usr/sbin/arptables-nft to provide /usr/sbin/arptables (arpt
ables) in auto mode
update-alternatives: using /usr/sbin/ebtables-nft to provide /usr/sbin/ebtables (ebtabl
es) in auto mode
Setting up docker-ce (5:27.3.1-1~debian.12~bookworm) ...
Created symlink /etc/systemd/system/multi-user.target.wants/docker.service → /lib/syste
md/system/docker.service.
Created symlink /etc/systemd/system/sockets.target.wants/docker.socket → /lib/systemd/s
ystem/docker.socket.
Setting up git (1:2.39.5-0+deb12u1) ...
Processing triggers for man-db (2.11.2-2) ...

Progress: [ 98%] [#############################################################..]
```
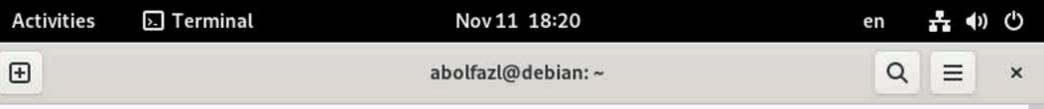
```
Setting up iptables (1.8.9-2) ...
update-alternatives: using /usr/sbin/iptables-legacy to provide /usr/sbin/iptables (ipt
ables) in auto mode
update-alternatives: using /usr/sbin/ip6tables-legacy to provide /usr/sbin/ip6tables (i
p6tables) in auto mode
update-alternatives: using /usr/sbin/iptables-nft to provide /usr/sbin/iptables (iptabl
es) in auto mode
update-alternatives: using /usr/sbin/ip6tables-nft to provide /usr/sbin/ip6tables (ip6t
ables) in auto mode
update-alternatives: using /usr/sbin/arptables-nft to provide /usr/sbin/arptables (arpt
ables) in auto mode
update-alternatives: using /usr/sbin/ebtables-nft to provide /usr/sbin/ebtables (ebtabl
es) in auto mode
Setting up docker-ce (5:27.3.1-1~debian.12~bookworm) ...
Created symlink /etc/systemd/system/multi-user.target.wants/docker.service → /lib/syste
md/system/docker.service.
Created symlink /etc/systemd/system/sockets.target.wants/docker.socket → /lib/systemd/s
ystem/docker.socket.
Setting up git (1:2.39.5-0+deb12u1) ...
Processing triggers for man-db (2.11.2-2) ...
Processing triggers for libc-bin (2.36-9+deb12u7) ...
root@debian:/home/abolfazl# 
```
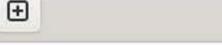
```
See 'docker run --help'.
root@debian:/home/abolfazl# docker run hello-world
Unable to find image 'hello-world:latest' locally
latest: Pulling from library/hello-world
c1ec31eb5944: Pull complete
Digest: sha256:d211f485f2dd1dee407a80973c8f129f00d54604d2c90732e8e320e5038a0348
Status: Downloaded newer image for hello-world:latest


Hello from Docker!
This message shows that your installation appears to be working correctly.

To generate this message, Docker took the following steps:
 1. The Docker client contacted the Docker daemon.
 2. The Docker daemon pulled the "hello-world" image from the Docker Hub.
    (amd64)
 3. The Docker daemon created a new container from that image which runs the
    executable that produces the output you are currently reading.
 4. The Docker daemon streamed that output to the Docker client, which sent it
    to your terminal.

To try something more ambitious, you can run an Ubuntu container with:
 $ docker run -it ubuntu bash


Share images, automate workflows, and more with a free Docker ID:
 https://hub.docker.com/
```

```
  aufs-tools cgroupfs-mount | cgroup-lite git-daemon-run | git-daemon-sysvinit
  git-doc git-email git-gui gitk gitweb git-cvs git-mediawiki git-svn firewalld ed
  diffutils-doc
The following NEW packages will be installed:
  containerd.io docker-buildx-plugin docker-ce docker-ce-cli
  docker-ce-rootless-extras docker-compose-plugin git git-man iptables liberror-perl
  libip6tc2 libslirp0 patch pigz slirp4netns
0 upgraded, 15 newly installed, 0 to remove and 157 not upgraded.
Need to get 123 MB/133 MB of archives.
After this operation, 492 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 https://download.docker.com/linux/debian bookworm/stable amd64 containerd.io amd6
4 1.7.22-1 [29.5 MB]
25% [1 containerd.io 11.1 MB/29.5 MB 38%]                           240 kB/s 7min 44s
27% [1 containerd.io 15.1 MB/29.5 MB 51%]                           245 kB/s 7min 19s
Get:2 https://download.docker.com/linux/debian bookworm/stable amd64 docker-buildx-plug
in amd64 0.17.1-1~debian.12~bookworm [30.3 MB]
Get:3 https://download.docker.com/linux/debian bookworm/stable amd64 docker-ce-cli amd6
4 5:27.3.1-1~debian.12~bookworm [15.0 MB]
59% [3 docker-ce-cli 3,341 kB/15.0 MB 22%]                          245 kB/s 4min 2s
59% [3 docker-ce-cli 4,062 kB/15.0 MB 27%]                          245 kB/s 3min 59s
Get:4 https://download.docker.com/linux/debian bookworm/stable amd64 docker-ce amd64 5:
27.3.1-1~debian.12~bookworm [25.6 MB]
72% [4 docker-ce 7,569 kB/25.6 MB 30%]                              242 kB/s 2min 45s
```

⊞   ✕   abolfazl@debian: ~   🔍 ☰   ✕

```
root@debian:/home/abolfazl# sudo systemctl status docker
● docker.service - Docker Application Container Engine
     Loaded: loaded (/lib/systemd/system/docker.service; enabled; preset: enabled)
     Active: active (running) since Mon 2024-11-11 18:17:54 +0330; 4min 46s ago
TriggeredBy: ● docker.socket
       Docs: https://docs.docker.com
   Main PID: 6124 (dockerd)
      Tasks: 9
     Memory: 27.0M
        CPU: 914ms
     CGroup: /system.slice/docker.service
             └─6124 /usr/bin/dockerd -H fd:// --containerd=/run/containerd/containerd.>

Nov 11 18:17:49 debian systemd[1]: Starting docker.service - Docker Application Contai>
Nov 11 18:17:50 debian dockerd[6124]: time="2024-11-11T18:17:50.247513461+03:30" level>
Nov 11 18:17:51 debian dockerd[6124]: time="2024-11-11T18:17:51.587524081+03:30" level>
Nov 11 18:17:53 debian dockerd[6124]: time="2024-11-11T18:17:53.995392698+03:30" level>
Nov 11 18:17:54 debian dockerd[6124]: time="2024-11-11T18:17:54.053672576+03:30" level>
Nov 11 18:17:54 debian dockerd[6124]: time="2024-11-11T18:17:54.053877083+03:30" level>
Nov 11 18:17:54 debian dockerd[6124]: time="2024-11-11T18:17:54.053963596+03:30" level>
Nov 11 18:17:54 debian dockerd[6124]: time="2024-11-11T18:17:54.054188637+03:30" level>
Nov 11 18:17:54 debian dockerd[6124]: time="2024-11-11T18:17:54.104221025+03:30" level>
Nov 11 18:17:54 debian systemd[1]: Started docker.service - Docker Application Contain>
lines 1-22/22 (END)
```

abolfazl@debian: ~

```
        Docs: https://docs.docker.com
    Main PID: 6124 (dockerd)
       Tasks: 9
      Memory: 27.0M
         CPU: 914ms
      CGroup: /system.slice/docker.service
              └─6124 /usr/bin/dockerd -H fd:// --containerd=/run/containerd/containerd.>

Nov 11 18:17:49 debian systemd[1]: Starting docker.service - Docker Application Contai>
Nov 11 18:17:50 debian dockerd[6124]: time="2024-11-11T18:17:50.247513461+03:30" level>
Nov 11 18:17:51 debian dockerd[6124]: time="2024-11-11T18:17:51.587524081+03:30" level>
Nov 11 18:17:53 debian dockerd[6124]: time="2024-11-11T18:17:53.995392698+03:30" level>
Nov 11 18:17:54 debian dockerd[6124]: time="2024-11-11T18:17:54.053672576+03:30" level>
Nov 11 18:17:54 debian dockerd[6124]: time="2024-11-11T18:17:54.053877083+03:30" level>
Nov 11 18:17:54 debian dockerd[6124]: time="2024-11-11T18:17:54.053963596+03:30" level>
Nov 11 18:17:54 debian dockerd[6124]: time="2024-11-11T18:17:54.054188637+03:30" level>
Nov 11 18:17:54 debian dockerd[6124]: time="2024-11-11T18:17:54.104221025+03:30" level>
Nov 11 18:17:54 debian systemd[1]: Started docker.service - Docker Application Contain>
lines 1-22/22 (END)
[1]+  Stopped                 sudo systemctl status docker
root@debian:/home/abolfazl# newgrp docker
root@debian:/home/abolfazl# docker --version
Docker version 27.3.1, build ce12230
root@debian:/home/abolfazl#
```

abolfazl@debian: ~

```
abolfazl@debian:~$ sudo docker run hello-world
[sudo] password for abolfazl:

Hello from Docker!
This message shows that your installation appears to be working correctly.

To generate this message, Docker took the following steps:
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 2. The Docker daemon pulled the "hello-world" image from the Docker Hub.
    (amd64)
 3. The Docker daemon created a new container from that image which runs the
    executable that produces the output you are currently reading.
 4. The Docker daemon streamed that output to the Docker client, which sent it
    to your terminal.

To try something more ambitious, you can run an Ubuntu container with:
 $ docker run -it ubuntu bash

Share images, automate workflows, and more with a free Docker ID:
 https://hub.docker.com/

For more examples and ideas, visit:
 https://docs.docker.com/get-started/

abolfazl@debian:~$ █
```