

Install docker on ubuntu

Solution-1

Set up Docker's apt repository

Add Docker's official GPG key:

```
sudo apt-get update
```

```
sudo apt-get install ca-certificates curl
```

```
sudo install -m 0755 -d /etc/apt/keyrings
```

```
sudo curl -fsSL https://download.docker.com/linux/ubuntu/gpg -o /etc/apt/keyrings/docker.asc
```

```
sudo chmod a+r /etc/apt/keyrings/docker.asc
```

Add the repository to Apt sources:

```
echo \
```

```
"deb [arch=$(dpkg --print-architecture) signed-by=/etc/apt/keyrings/docker.asc]  
https://download.docker.com/linux/ubuntu \
```

```
$(. /etc/os-release && echo "$VERSION_CODENAME") stable" | \
```

```
sudo tee /etc/apt/sources.list.d/docker.list > /dev/null
```

```
sudo apt-get update
```

```
arisu@arisu: $ sudo apt-get install ca-certificates curl  
[sudo] password for arisu:  
Reading package lists... Done  
Building dependency tree... Done  
Reading state information... Done  
ca-certificates is already the newest version (20240203-22.04.1).  
ca-certificates set to manually installed.  
The following NEW packages will be installed:  
    curl  
0 upgraded, 1 newly installed, 0 to remove and 34 not upgraded.  
Need to get 194 kB of archives.  
After this operation, 455 kB of additional disk space will be used.  
Do you want to continue? [Y/n] y  
Get:1 http://ir.archive.ubuntu.com/ubuntu jammy-updates/main amd64 curl amd64 7.81.0-1ubuntu1.19 [194 kB]  
Fetched 194 kB in 5s (35.6 kB/s)  
Selecting previously unselected package curl.  
(Reading database ... 184616 files and directories currently installed.)  
Preparing to unpack .../curl_7.81.0-1ubuntu1.19_amd64.deb ...  
Unpacking curl (7.81.0-1ubuntu1.19) ...  
Setting up curl (7.81.0-1ubuntu1.19) ...  
Processing triggers for man-db (2.10.2-1) ...  
arisu@arisu: $ sudo install -m 0755 -d /etc/apt/keyrings  
arisu@arisu: $ sudo curl -fsSL https://download.docker.com/linux/ubuntu/gpg -o /etc/apt/keyrings/docker.asc  
curl: (35) error:0A000126:SSL routines::unexpected eof while reading  
arisu@arisu: $ sudo chmod a+r /etc/apt/keyrings/docker.asc  
arisu@arisu: $ echo \  
"deb [arch=$(dpkg --print-architecture) signed-by=/etc/apt/keyrings/docker.asc] https://download.docker.com/linux/ubuntu \  
$(. /etc/os-release && echo "$VERSION_CODENAME") stable" | \  
sudo tee /etc/apt/sources.list.d/docker.list > /dev/null  
arisu@arisu: $ sudo apt-get update  
Hit:1 http://security.ubuntu.com/ubuntu jammy-security InRelease  
Hit:2 https://packages.microsoft.com/repos/code stable InRelease  
Get:3 https://download.docker.com/linux/ubuntu jammy InRelease [48.8 kB]  
Hit:4 http://ir.archive.ubuntu.com/ubuntu jammy InRelease
```

Install the Docker packages

To install the latest version, run:

```
sudo apt-get install docker-ce docker-ce-cli containerd.io docker-buildx-plugin docker-compose-plugin
```

Verify that the installation is successful by running the hello-world image:

```
sudo docker run hello-world
```

```
Reading package lists... Done
arisu@arisu: $ sudo apt-get install docker-ce docker-ce-cli containerd.io docker-buildx-plugin docker-compose-plugin
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
E: Unable to locate package docker-compose-plugin
arisu@arisu: $
```

Not work for me 😞

Solution-2

Update Your System

```
sudo apt update && sudo apt upgrade -y
```

Install Prerequisites

```
sudo apt install -y apt-transport-https ca-certificates curl software-properties-common
```

Add Docker's Official GPG Key

```
curl -fsSL https://download.docker.com/linux/ubuntu/gpg | sudo gpg --dearmor -o /usr/share/keyrings/docker-archive-keyring.gpg
```

Add Docker's Repository

```
echo "deb [arch=$(dpkg --print-architecture) signed-by=/usr/share/keyrings/docker-archive-keyring.gpg] https://download.docker.com/linux/ubuntu $(lsb_release -cs) stable" | sudo tee /etc/apt/sources.list.d/docker.list > /dev/null
```

```

arisu@arisu: $ sudo apt install -y apt-transport-https ca-certificates curl software-properties-common
[sudo] password for arisu:
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
ca-certificates is already the newest version (20240203-22.04.1).
curl is already the newest version (7.81.0-1ubuntu1.19).
software-properties-common is already the newest version (0.99.22.9).
software-properties-common set to manually installed.
The following NEW packages will be installed:
  apt-transport-https
0 upgraded, 1 newly installed, 0 to remove and 34 not upgraded.
Need to get 1,510 B of archives.
After this operation, 170 kB of additional disk space will be used.
Get:1 http://lr.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 apt-transport-https all 2.4.13 [1,510 B]
Fetched 1,510 B in 3s (459 B/s)
Selecting previously unselected package apt-transport-https.
(Reading database ... 185471 files and directories currently installed.)
Preparing to unpack .../apt-transport-https_2.4.13_all.deb ...
Unpacking apt-transport-https (2.4.13) ...
Setting up apt-transport-https (2.4.13) ...
arisu@arisu: $ curl -fsSL https://download.docker.com/linux/ubuntu/gpg | sudo gpg --dearmor -o /usr/share/keyrings/docker-archive-keyring.gpg
arisu@arisu: $ echo deb [arch=$(dpkg --print-architecture) signed-by=/usr/share/keyrings/docker-archive-keyring.gpg] https://download.docker.com/linux/ubuntu $(lsb_release -cs) stable" | sudo tee /etc/ap
t/sources.list.d/docker.list > /dev/null
arisu@arisu: $ sudo apt update
Hit:1 http://lr.archive.ubuntu.com/ubuntu jammy InRelease
Hit:2 http://lr.archive.ubuntu.com/ubuntu jammy-updates InRelease
Hit:3 http://security.ubuntu.com/ubuntu jammy-security InRelease
Hit:4 https://download.docker.com/linux/ubuntu jammy InRelease
Hit:5 https://packages.microsoft.com/repos/code stable InRelease
Hit:6 https://dl.google.com/linux/chrome/deb stable InRelease
Get:7 https://dl.google.com/linux/chrome/deb stable InRelease [1,825 B]
Get:8 https://dl.google.com/linux/chrome/deb/stable/main amd64 Packages [1,219 B]
Fetched 3,044 B in 38s (79 B/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
34 packages can be upgraded. Run 'apt list --upgradable' to see them.

```

Install Docker

sudo apt update

sudo apt install -y docker-ce docker-ce-cli containerd.io

```

arisu@arisu: $ sudo apt install -y docker-ce docker-ce-cli containerd.io
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  docker-buildx-plugin docker-ce-rootless-extras docker-compose-plugin git git-man liberror-perl libslirp0 libz slirp4netns
Suggested packages:
  aufs-tools cgroups-mount | cgroup-lite git-daemon-run | git-daemon-svscan git-doc git-email git-gui gitk gitweb git-cvs git-mediawiki git-svn
The following NEW packages will be installed:
  containerd.io docker-buildx-plugin docker-ce docker-ce-rootless-extras docker-compose-plugin git git-man liberror-perl libslirp0 libz slirp4netns
0 upgraded, 12 newly installed, 0 to remove and 34 not upgraded.
Need to get 127 MB of archives.
After this operation, 463 MB of additional disk space will be used.
Get:1 http://lr.archive.ubuntu.com/ubuntu jammy/universe amd64 libz amd64 2.6.1 [62.6 kB]
Ign:2 https://download.docker.com/linux/ubuntu jammy/stable amd64 containerd.io amd64 1.23.1-1 [7.23-1]
Get:3 http://lr.archive.ubuntu.com/ubuntu jammy/universe amd64 libslirp0 libz slirp4netns all 0.17.0-1722-1 [26.5 kB]
Get:4 http://lr.archive.ubuntu.com/ubuntu jammy-updates/main amd64 git-man all 1:2.34.1-1ubuntu1.11 [955 kB]
Get:5 https://download.docker.com/linux/ubuntu jammy/stable amd64 docker-buildx-plugin amd64 0.17.1-1-ubuntu.22.04-jammy [30.3 MB]
Get:6 http://lr.archive.ubuntu.com/ubuntu jammy-updates/main amd64 git amd64 1:2.34.1-1ubuntu1.11 [3,165 kB]
Get:7 http://lr.archive.ubuntu.com/ubuntu jammy/main amd64 libslirp0 amd64 4.6.1-1build1 [61.5 kB]
Get:8 http://lr.archive.ubuntu.com/ubuntu jammy/universe amd64 slirp4netns amd64 1.0.1-2 [28.2 kB]
Ign:9 https://download.docker.com/linux/ubuntu jammy/stable amd64 docker-buildx-plugin amd64 0.17.1-1-ubuntu.22.04-jammy
Get:9 https://download.docker.com/linux/ubuntu jammy/stable amd64 docker-ce-cli amd64 5:27.3.1-1-ubuntu.22.04-jammy [15.0 MB]
Get:10 https://download.docker.com/linux/ubuntu jammy/stable amd64 docker-ce amd64 5:27.3.1-1-ubuntu.22.04-jammy [25.6 MB]
Get:11 https://download.docker.com/linux/ubuntu jammy/stable amd64 docker-ce-rootless-extras amd64 5:27.3.1-1-ubuntu.22.04-jammy [9,589 kB]
Get:12 https://download.docker.com/linux/ubuntu jammy/stable amd64 docker-compose-plugin amd64 2.29.7-1-ubuntu.22.04-jammy [12.7 MB]
53% [12 docker-compose-plugin 5,455 kB/12.7 MB 43%] 46.3 kB/s 24min 5s

```

Verify Docker Installation

```
sudo systemctl status docker
```

```
docker --version
```

```
arisu@arisu: $ sudo systemctl status docker
● docker.service - Docker Application Container Engine
   Loaded: loaded (/lib/systemd/system/docker.service; enabled; vendor preset: enabled)
     Active: active (running) since Sat 2024-11-23 00:31:30 +0330; 10min ago
TriggeredBy: ● docker.socket
Main PID: 21381 (dockerd)
   Tasks: 14
     Memory: 21.7M
        CPU: 293ms
      CGroup: /system.slice/docker.service
              └─21381 /usr/bin/dockerd -H fd:// --containerd=/run/containerd/containerd.sock

Nov 23 00:31:30 arisu dockerd[21381]: time="2024-11-23T00:31:30.085969793+03:30" level=info msg="Starting up"
Nov 23 00:31:30 arisu dockerd[21381]: time="2024-11-23T00:31:30.08997282+03:30" level=info msg="Detected 127.0.0.53 nameserver, assuming systemd-resolved, so using resolv.conf: /run/systemd/resolve/resolv.conf"
Nov 23 00:31:30 arisu dockerd[21381]: time="2024-11-23T00:31:30.157793244+03:30" level=info msg="Loading containers: start."
Nov 23 00:31:30 arisu dockerd[21381]: time="2024-11-23T00:31:30.506992242+03:30" level=info msg="Loading containers: done."
Nov 23 00:31:30 arisu dockerd[21381]: time="2024-11-23T00:31:30.518569432+03:30" level=warning msg="WARNING: bridge-nf-call-iptables is disabled"
Nov 23 00:31:30 arisu dockerd[21381]: time="2024-11-23T00:31:30.518581180+03:30" level=warning msg="WARNING: bridge-nf-call-ip6tables is disabled"
Nov 23 00:31:30 arisu dockerd[21381]: time="2024-11-23T00:31:30.518604230+03:30" level=info msg="Docker daemon commit=4ica978 containerd-snapshotter=false storage-driver=overlay2 version=27.3.1"
Nov 23 00:31:30 arisu dockerd[21381]: time="2024-11-23T00:31:30.518685077+03:30" level=info msg="Daemon has completed initialization"
Nov 23 00:31:30 arisu dockerd[21381]: time="2024-11-23T00:31:30.553372314+03:30" level=info msg="API listen on /run/docker.sock"
Nov 23 00:31:30 arisu systemd[1]: Started Docker Application Container Engine.
arisu@arisu: $
```

Run Docker example image

```
docker run hello-world
```

```
arisu@arisu: $ sudo docker pull hello-world
Using default tag: latest
latest: Pulling from library/hello-world
c1ec31eb5944: Pull complete
Digest: sha256:305243c734571da2d100c8c8b3c3167a098cab6049c9a5b066b6021a60fc966
Status: Downloaded newer image for hello-world:latest
docker.io/library/hello-world:latest
arisu@arisu: $
```

```
arisu@arisu: $ sudo docker run hello-world
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/

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