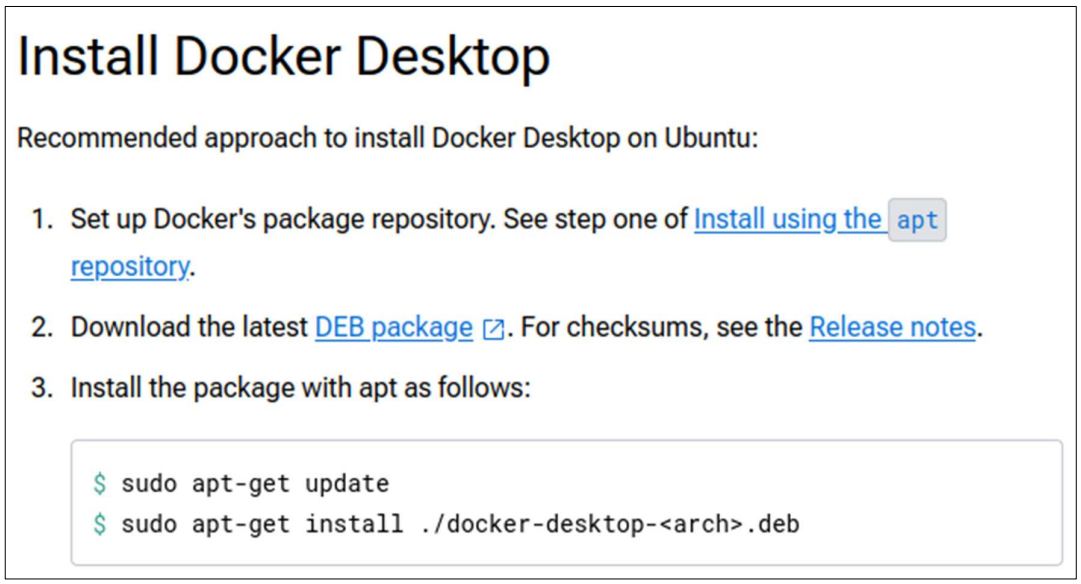
Docker

Docker is an open-source platform that allows you to automate the deployment and management of applications within lightweight, isolated software containers.

Step 1: Setup Docker's package repositories

Link 1: https://docs.docker.com/desktop/install/linux/ubuntu/
Note: Click on Download the latest **DEB package** link of **Docker official website**

Link 2: https://docs.docker.com/engine/install/ubuntu/#install-using-the-repository



Install Docker Desktop

Recommended approach to install Docker Desktop on Ubuntu:

1. Set up Docker's package repository. See step one of Install using the `apt` repository.
2. Download the latest DEB package. For checksums, see the Release notes.
3. Install the package with apt as follows:

```
$ sudo apt-get update
$ sudo apt-get install ./docker-desktop-<arch>.deb
```

Process 1: Add Docker's official GPG key:

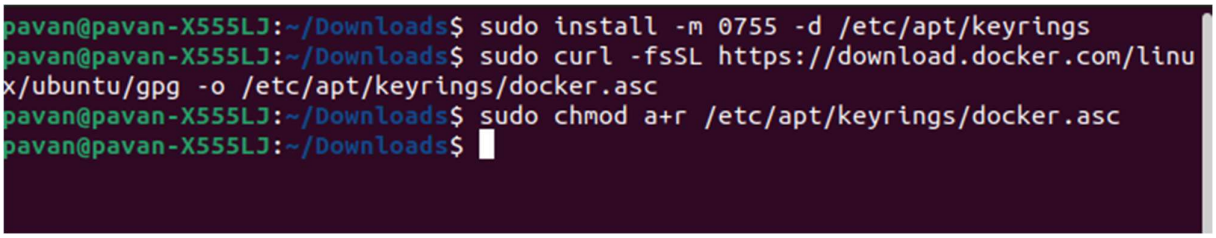
Command 1: sudo apt-get update
Command 2: sudo apt-get install ca-certificates curl

```
pavan@pavan-X555LJ:~/Downloads$ sudo apt-get install ca-certificates curl
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 0 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://archive.ubuntu.com/ubuntu jammy-updates/main amd64 curl amd64 7.81.
0-1ubuntu1.18 [194 kB]
Fetched 194 kB in 2s (123 kB/s)
Selecting previously unselected package curl.
(Reading database ... 208505 files and directories currently installed.)
Preparing to unpack .../curl_7.81.0-1ubuntu1.18_amd64.deb ...
Unpacking curl (7.81.0-1ubuntu1.18) ...
Setting up curl (7.81.0-1ubuntu1.18) ...
Processing triggers for man-db (2.10.2-1) ...
```

Command 3: sudo install -m 0755 -d /etc/apt/keyrings

Command 4: sudo curl -fsSL https://download.docker.com/linux/ubuntu/gpg -o /etc/apt/keyrings/docker.asc

Command 5: sudo chmod a+r /etc/apt/keyrings/docker.asc



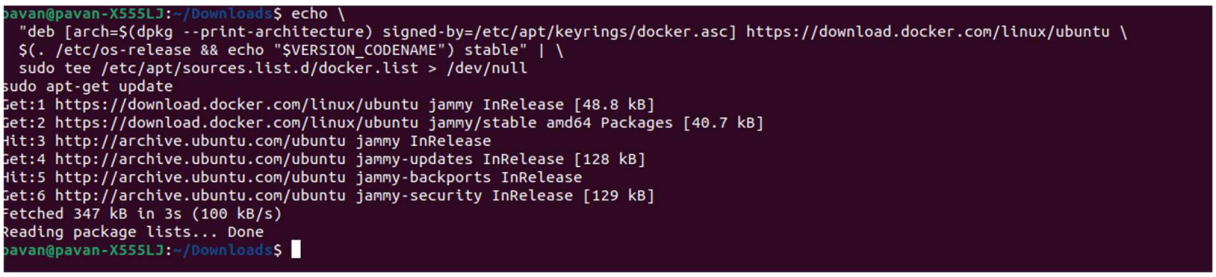
Process 2: Add the repository to Apt sources:

Command 1:

```
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
```

Command 2: sudo apt-get update



Step 2: Download the latest **DEB package** link of **Docker officeal website**

Link 1: https://docs.docker.com/desktop/install/linux/ubuntu/

Step 3: Install the package with apt as follows:

Command 1: sudo apt-get update

syntex: sudo apt-get install ./docker-desktop-<arch>.deb

Command: sudo apt-get install ./docker-desktop-amd64.deb

```
pavan@pavan-X555LJ:~/Downloads$ sudo apt-get install ./docker-desktop-amd64.deb
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
Note, selecting 'docker-desktop' instead of './docker-desktop-amd64.deb'
The following additional packages will be installed:
  cpu-checker docker-buildx-plugin docker-ce-cli docker-compose-plugin git git-man ibverbs-providers ipxe-qemu
  ipxe-qemu-256k-compat-efi-roms libaio1 libcacard0 libdaxctl1 libdecor-0-0 libdecor-0-plugin-1-cairo liberror-perl libfdt1 libgfapi0
  libgfrpc0 libgfxdr0 libglusterfs0 libibverbs1 libiscsi7 libndctl6 libpmem1 libpmemobj1 libqrencode4 librados2 librbd1 librdmacm1
  libsdl2-2.0-0 libslirp0 libspice-server1 liburing2 libusbredirparser1 libvirglrenderer1 msr-tools ovmf pass qemu-block-extra
  qemu-system-common qemu-system-data qemu-system-gui qemu-system-x86 qemu-utils qrencode seabios tree uidmap xclip
Suggested packages:
  git-daemon-run | git-daemon-sysvinit git-doc git-email git-gui gitk gitweb git-cvs git-mediawiki git-svn libxml-simple-perl python ruby
  samba vde2 debootstrap
The following NEW packages will be installed:
  cpu-checker docker-buildx-plugin docker-ce-cli docker-compose-plugin docker-desktop git git-man ibverbs-providers ipxe-qemu
  ipxe-qemu-256k-compat-efi-roms libaio1 libcacard0 libdaxctl1 libdecor-0-0 libdecor-0-plugin-1-cairo liberror-perl libfdt1 libgfapi0
  libgfrpc0 libgfxdr0 libglusterfs0 libibverbs1 libiscsi7 libndctl6 libpmem1 libpmemobj1 libqrencode4 librados2 librbd1 librdmacm1
  libsdl2-2.0-0 libslirp0 libspice-server1 liburing2 libusbredirparser1 libvirglrenderer1 msr-tools ovmf pass qemu-block-extra
  qemu-system-common qemu-system-data qemu-system-gui qemu-system-x86 qemu-utils qrencode seabios tree uidmap xclip
0 upgraded, 50 newly installed, 0 to remove and 0 not upgraded.
Need to get 97.2 MB/458 MB of archives.
After this operation, 334 MB of additional disk space will be used.
Do you want to continue? [Y/n]
```

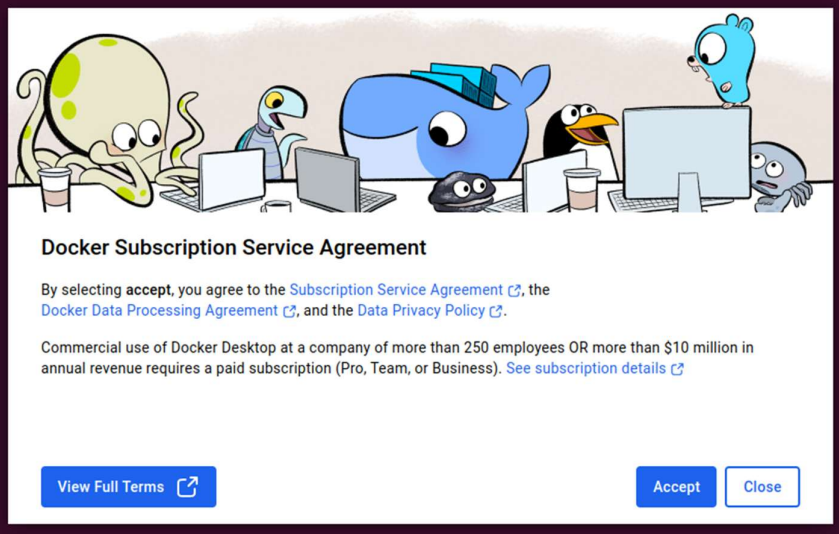
Note: After installation, you can use Docker without sudo by adding your user to the docker group:

Command: sudo usermod -aG docker $USER

or Start using below command

Command: systemctl --user start docker-desktop

```
pavan@pavan-X555LJ:~$ systemctl --user start docker-desktop
pavan@pavan-X555LJ:~$
```



Note: After you've successfully installed Docker Desktop, you can check the versions of these binaries by running the following commands:

Command 1: docker compose version

Command 2: docker –version

Command 3: docker version

```
pavan@pavan-X555LJ:~$ systemctl --user start docker-desktop
pavan@pavan-X555LJ:~$ docker compose version
Docker Compose version v2.29.2-desktop.2
pavan@pavan-X555LJ:~$ docker --version
Docker version 27.3.1, build ce12230
pavan@pavan-X555LJ:~$ docker version
Client: Docker Engine - Community
 Version:           27.3.1
 API version:       1.47
 Go version:        go1.22.7
 Git commit:        ce12230
 Built:             Fri Sep 20 11:41:00 2024
 OS/Arch:           linux/amd64
 Context:           desktop-linux

Server: Docker Desktop 4.34.3 (170107)
 Engine:
  Version:          27.2.0
  API version:      1.47 (minimum version 1.24)
  Go version:       go1.21.13
  Git commit:       3ab5c7d
  Built:            Tue Aug 27 14:15:15 2024
  OS/Arch:          linux/amd64
  Experimental:     false
 containerd:
  Version:          1.7.20
  GitCommit:        8fc6bcff51318944179630522a095cc9dbf9f353
 runc:
  Version:          1.1.13
  GitCommit:        v1.1.13-0-g58aa920
 docker-init:
  Version:          0.19.0
  GitCommit:        de40ad0
pavan@pavan-X555LJ:~$
```

To enable Docker Desktop to start:

Command: systemctl --user enable docker-desktop

To stop Docker Desktop:

Command: systemctl --user stop docker-desktop