```
login as: anusha954
anusha954@20.70.141.13's password:
Welcome to Ubuntu 24.04 LTS (GNU/Linux 6.8.0-1012-azure x86_64)

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

 System information as of Tue Aug 13 04:10:24 UTC 2024

  System load:  0.08              Processes:             117
  Usage of /:   5.0% of 28.02GB   Users logged in:       0
  Memory usage: 3%                IPv4 address for eth0: 10.0.0.4
  Swap usage:   0%

Expanded Security Maintenance for Applications is not enabled.

0 updates can be applied immediately.

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

anusha954@myVM:~$ sudo su -
root@myVM:~# # dnf -y install yum-utils
root@myVM:~# sudo apt-get update
Hit:1 http://azure.archive.ubuntu.com/ubuntu noble InRelease
Get:2 http://azure.archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]
Get:3 http://azure.archive.ubuntu.com/ubuntu noble-backports InRelease [126 kB]
Get:4 http://azure.archive.ubuntu.com/ubuntu noble-security InRelease [126 kB]
Get:5 http://azure.archive.ubuntu.com/ubuntu noble/universe amd64 Packages [15.0 MB]
Get:6 http://azure.archive.ubuntu.com/ubuntu noble/universe Translation-en [5982 kB]
Get:7 http://azure.archive.ubuntu.com/ubuntu noble/universe amd64 Components [3871 kB]
Get:8 http://azure.archive.ubuntu.com/ubuntu noble/universe amd64 c-n-f Metadata [301 kB]
Get:9 http://azure.archive.ubuntu.com/ubuntu noble/multiverse amd64 Packages [269 kB]
Get:10 http://azure.archive.ubuntu.com/ubuntu noble/multiverse Translation-en [118 kB]
Get:11 http://azure.archive.ubuntu.com/ubuntu noble/multiverse amd64 Components [35.0 kB]
Get:12 http://azure.archive.ubuntu.com/ubuntu noble/multiverse amd64 c-n-f Metadata [8328 B]
```
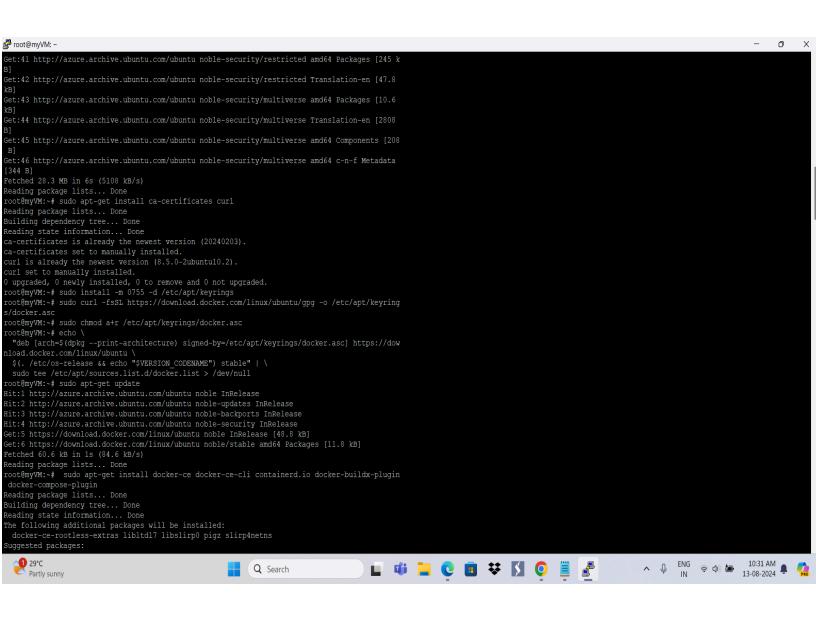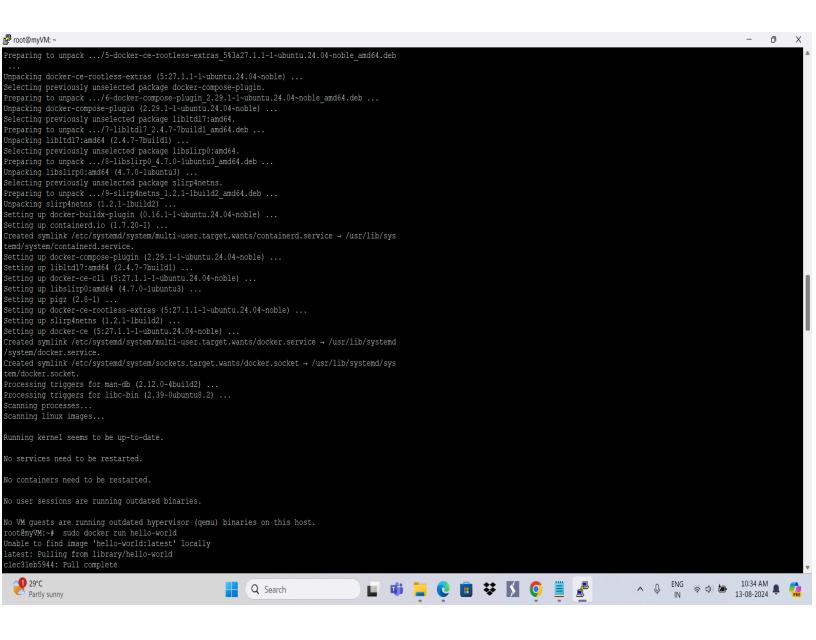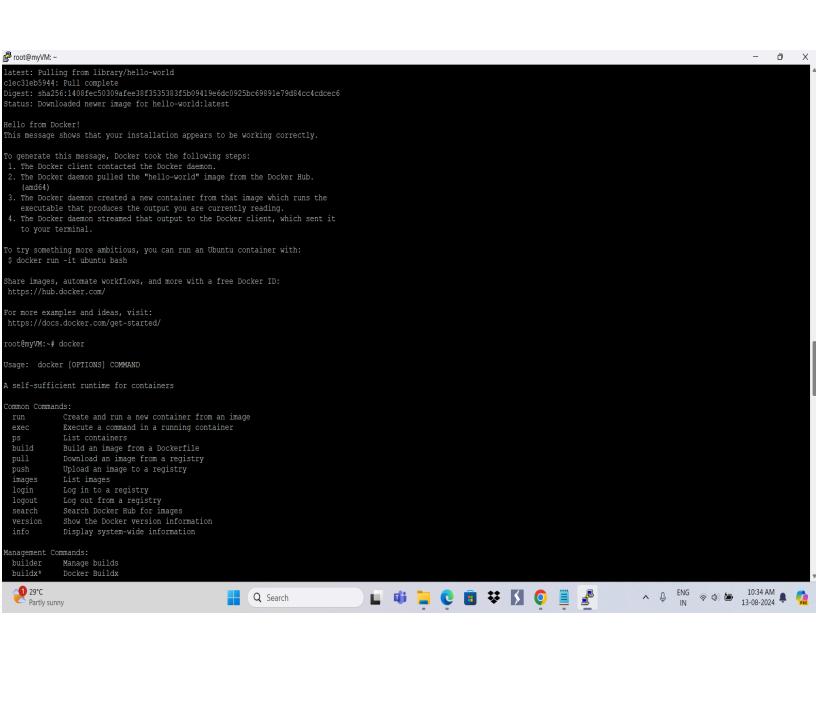
```
Get:12 http://azure.archive.ubuntu.com/ubuntu noble/multiverse amd64 c-n-f Metadata [8328 B]
Get:13 http://azure.archive.ubuntu.com/ubuntu noble-updates/main amd64 Packages [346 kB]
Get:14 http://azure.archive.ubuntu.com/ubuntu noble-updates/main Translation-en [86.9 kB]
Get:15 http://azure.archive.ubuntu.com/ubuntu noble-updates/universe amd64 Packages [321 kB]
Get:16 http://azure.archive.ubuntu.com/ubuntu noble-updates/universe Translation-en [135 kB]
Get:17 http://azure.archive.ubuntu.com/ubuntu noble-updates/universe amd64 Components [45.0 k
B]
Get:18 http://azure.archive.ubuntu.com/ubuntu noble-updates/universe amd64 c-n-f Metadata [12
.7 kB]
Get:19 http://azure.archive.ubuntu.com/ubuntu noble-updates/restricted amd64 Packages [245 kB
]
Get:20 http://azure.archive.ubuntu.com/ubuntu noble-updates/restricted Translation-en [47.8 k
B]
Get:21 http://azure.archive.ubuntu.com/ubuntu noble-updates/multiverse amd64 Packages [14.1 k
B]
Get:22 http://azure.archive.ubuntu.com/ubuntu noble-updates/multiverse Translation-en [3608 B
]
Get:23 http://azure.archive.ubuntu.com/ubuntu noble-updates/multiverse amd64 Components [212
B]
Get:24 http://azure.archive.ubuntu.com/ubuntu noble-updates/multiverse amd64 c-n-f Metadata [
532 B]
Get:25 http://azure.archive.ubuntu.com/ubuntu noble-backports/main amd64 Components [208 B]
Get:26 http://azure.archive.ubuntu.com/ubuntu noble-backports/main amd64 c-n-f Metadata [112
B]
Get:27 http://azure.archive.ubuntu.com/ubuntu noble-backports/universe amd64 Packages [10.3 k
B]
Get:28 http://azure.archive.ubuntu.com/ubuntu noble-backports/universe Translation-en [10.5 k
B]
Get:29 http://azure.archive.ubuntu.com/ubuntu noble-backports/universe amd64 Components [17.6
 kB]
Get:30 http://azure.archive.ubuntu.com/ubuntu noble-backports/universe amd64 c-n-f Metadata [
1016 B]
Get:31 http://azure.archive.ubuntu.com/ubuntu noble-backports/restricted amd64 Components [21
6 B]
Get:32 http://azure.archive.ubuntu.com/ubuntu noble-backports/restricted amd64 c-n-f Metadata
 [116 B]
Get:33 http://azure.archive.ubuntu.com/ubuntu noble-backports/multiverse amd64 Components [21
2 B]
Get:34 http://azure.archive.ubuntu.com/ubuntu noble-backports/multiverse amd64 c-n-f Metadata
 [116 B]
Get:35 http://azure.archive.ubuntu.com/ubuntu noble-security/main amd64 Packages [293 kB]
Get:36 http://azure.archive.ubuntu.com/ubuntu noble-security/main Translation-en [67.1 kB]
Get:37 http://azure.archive.ubuntu.com/ubuntu noble-security/universe amd64 Packages [249 kB]
Get:38 http://azure.archive.ubuntu.com/ubuntu noble-security/universe Translation-en [108 kB]
Get:39 http://azure.archive.ubuntu.com/ubuntu noble-security/universe amd64 Components [8632
B]
Get:40 http://azure.archive.ubuntu.com/ubuntu noble-security/universe amd64 c-n-f Metadata [9
376 B]
Get:41 http://azure.archive.ubuntu.com/ubuntu noble-security/restricted amd64 Packages [245 k
```

```
Get:41 http://azure.archive.ubuntu.com/ubuntu noble-security/restricted amd64 Packages [245 k
B]
Get:42 http://azure.archive.ubuntu.com/ubuntu noble-security/restricted Translation-en [47.8
kB]
Get:43 http://azure.archive.ubuntu.com/ubuntu noble-security/multiverse amd64 Packages [10.6
kB]
Get:44 http://azure.archive.ubuntu.com/ubuntu noble-security/multiverse Translation-en [2808
B]
Get:45 http://azure.archive.ubuntu.com/ubuntu noble-security/multiverse amd64 Components [208
 B]
Get:46 http://azure.archive.ubuntu.com/ubuntu noble-security/multiverse amd64 c-n-f Metadata
[344 B]
Fetched 28.3 MB in 6s (5108 kB/s)
Reading package lists... Done
root@myVM:~# 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).
ca-certificates set to manually installed.
curl is already the newest version (8.5.0-2ubuntu10.2).
curl set to manually installed.
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
root@myVM:~# sudo install -m 0755 -d /etc/apt/keyrings
root@myVM:~# sudo curl -fsSL https://download.docker.com/linux/ubuntu/gpg -o /etc/apt/keyring
s/docker.asc
root@myVM:~# sudo chmod a+r /etc/apt/keyrings/docker.asc
root@myVM:~# echo \
  "deb [arch=$(dpkg --print-architecture) signed-by=/etc/apt/keyrings/docker.asc] https://dow
nload.docker.com/linux/ubuntu \
  $(. /etc/os-release && echo "$VERSION_CODENAME") stable" | \
  sudo tee /etc/apt/sources.list.d/docker.list > /dev/null
root@myVM:~# sudo apt-get update
Hit:1 http://azure.archive.ubuntu.com/ubuntu noble InRelease
Hit:2 http://azure.archive.ubuntu.com/ubuntu noble-updates InRelease
Hit:3 http://azure.archive.ubuntu.com/ubuntu noble-backports InRelease
Hit:4 http://azure.archive.ubuntu.com/ubuntu noble-security InRelease
Get:5 https://download.docker.com/linux/ubuntu noble InRelease [48.8 kB]
Get:6 https://download.docker.com/linux/ubuntu noble/stable amd64 Packages [11.8 kB]
Fetched 60.6 kB in 1s (84.6 kB/s)
Reading package lists... Done
root@myVM:~#  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
The following additional packages will be installed:
  docker-ce-rootless-extras libltdl7 libslirp0 pigz slirp4netns
Suggested packages:
```
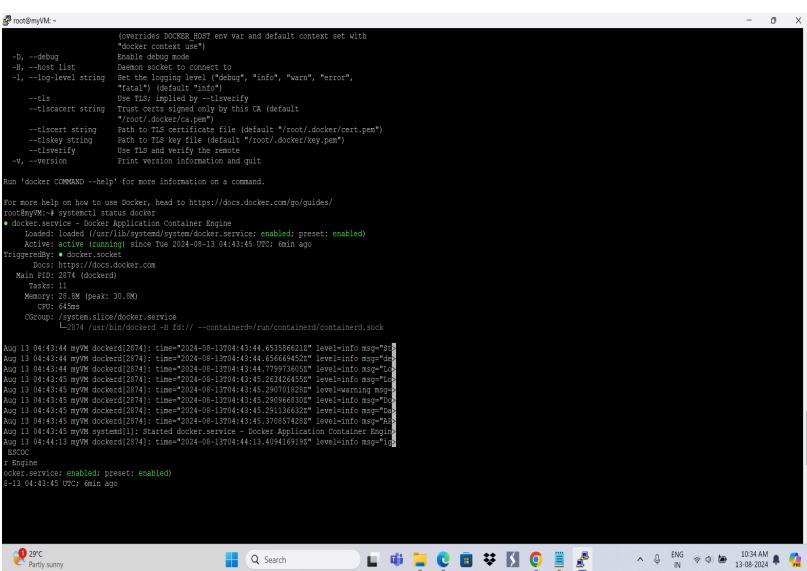
```
The following additional packages will be installed:
  docker-ce-rootless-extras libltdl7 libslirp0 pigz slirp4netns
Suggested packages:
  aufs-tools cgroupfs-mount | cgroup-lite
The following NEW packages will be installed:
  containerd.io docker-buildx-plugin docker-ce docker-ce-cli docker-ce-rootless-extras
  docker-compose-plugin libltdl7 libslirp0 pigz slirp4netns
0 upgraded, 10 newly installed, 0 to remove and 0 not upgraded.
Need to get 122 MB of archives.
After this operation, 437 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://azure.archive.ubuntu.com/ubuntu noble/universe amd64 pigz amd64 2.8-1 [65.6 kB]
Get:2 http://azure.archive.ubuntu.com/ubuntu noble/main amd64 libltdl7 amd64 2.4.7-7build1 [4
0.3 kB]
Get:3 http://azure.archive.ubuntu.com/ubuntu noble/main amd64 libslirp0 amd64 4.7.0-1ubuntu3
[63.8 kB]
Get:4 http://azure.archive.ubuntu.com/ubuntu noble/universe amd64 slirp4netns amd64 1.2.1-1bu
ild2 [34.9 kB]
Get:5 https://download.docker.com/linux/ubuntu noble/stable amd64 containerd.io amd64 1.7.20-
1 [30.5 MB]
Get:6 https://download.docker.com/linux/ubuntu noble/stable amd64 docker-buildx-plugin amd64
0.16.1-1~ubuntu.24.04~noble [29.9 MB]
Get:7 https://download.docker.com/linux/ubuntu noble/stable amd64 docker-ce-cli amd64 5:27.1.
1-1~ubuntu.24.04~noble [14.6 MB]
Get:8 https://download.docker.com/linux/ubuntu noble/stable amd64 docker-ce amd64 5:27.1.1-1~
ubuntu.24.04~noble [25.3 MB]
Get:9 https://download.docker.com/linux/ubuntu noble/stable amd64 docker-ce-rootless-extras a
md64 5:27.1.1-1~ubuntu.24.04~noble [9318 kB]
Get:10 https://download.docker.com/linux/ubuntu noble/stable amd64 docker-compose-plugin amd6
4 2.29.1-1~ubuntu.24.04~noble [12.5 MB]
Fetched 122 MB in 2s (75.5 MB/s)
Selecting previously unselected package pigz.
(Reading database ... 64525 files and directories currently installed.)
Preparing to unpack .../0-pigz_2.8-1_amd64.deb ...
Unpacking pigz (2.8-1) ...
Selecting previously unselected package containerd.io.
Preparing to unpack .../1-containerd.io_1.7.20-1_amd64.deb ...
Unpacking containerd.io (1.7.20-1) ...
Selecting previously unselected package docker-buildx-plugin.
Preparing to unpack .../2-docker-buildx-plugin_0.16.1-1~ubuntu.24.04~noble_amd64.deb ...
Unpacking docker-buildx-plugin (0.16.1-1~ubuntu.24.04~noble) ...
Selecting previously unselected package docker-ce-cli.
Preparing to unpack .../3-docker-ce-cli_5%3a27.1.1-1~ubuntu.24.04~noble_amd64.deb ...
Unpacking docker-ce-cli (5:27.1.1-1~ubuntu.24.04~noble) ...
Selecting previously unselected package docker-ce.
Preparing to unpack .../4-docker-ce_5%3a27.1.1-1~ubuntu.24.04~noble_amd64.deb ...
Unpacking docker-ce (5:27.1.1-1~ubuntu.24.04~noble) ...
Selecting previously unselected package docker-ce-rootless-extras.
Preparing to unpack .../5-docker-ce-rootless-extras_5%3a27.1.1-1~ubuntu.24.04~noble_amd64.deb
```

```
Preparing to unpack .../5-docker-ce-rootless-extras_5%3a27.1.1-1~ubuntu.24.04~noble_amd64.deb
...
Unpacking docker-ce-rootless-extras (5:27.1.1-1~ubuntu.24.04~noble) ...
Selecting previously unselected package docker-compose-plugin.
Preparing to unpack .../6-docker-compose-plugin_2.29.1-1~ubuntu.24.04~noble_amd64.deb ...
Unpacking docker-compose-plugin (2.29.1-1~ubuntu.24.04~noble) ...
Selecting previously unselected package libltdl7:amd64.
Preparing to unpack .../7-libltdl7_2.4.7-7build1_amd64.deb ...
Unpacking libltdl7:amd64 (2.4.7-7build1) ...
Selecting previously unselected package libslirp0:amd64.
Preparing to unpack .../8-libslirp0_4.7.0-1ubuntu3_amd64.deb ...
Unpacking libslirp0:amd64 (4.7.0-1ubuntu3) ...
Selecting previously unselected package slirp4netns.
Preparing to unpack .../9-slirp4netns_1.2.1-1build2_amd64.deb ...
Unpacking slirp4netns (1.2.1-1build2) ...
Setting up docker-buildx-plugin (0.16.1-1~ubuntu.24.04~noble) ...
Setting up containerd.io (1.7.20-1) ...
Created symlink /etc/systemd/system/multi-user.target.wants/containerd.service → /usr/lib/sys
temd/system/containerd.service.
Setting up docker-compose-plugin (2.29.1-1~ubuntu.24.04~noble) ...
Setting up libltdl7:amd64 (2.4.7-7build1) ...
Setting up docker-ce-cli (5:27.1.1-1~ubuntu.24.04~noble) ...
Setting up libslirp0:amd64 (4.7.0-1ubuntu3) ...
Setting up pigz (2.8-1) ...
Setting up docker-ce-rootless-extras (5:27.1.1-1~ubuntu.24.04~noble) ...
Setting up slirp4netns (1.2.1-1build2) ...
Setting up docker-ce (5:27.1.1-1~ubuntu.24.04~noble) ...
Created symlink /etc/systemd/system/multi-user.target.wants/docker.service → /usr/lib/systemd
/system/docker.service.
Created symlink /etc/systemd/system/sockets.target.wants/docker.socket → /usr/lib/systemd/sys
tem/docker.socket.
Processing triggers for man-db (2.12.0-4build2) ...
Processing triggers for libc-bin (2.39-0ubuntu8.2) ...
Scanning processes...
Scanning linux images...

Running kernel seems to be up-to-date.

No services need to be restarted.

No containers need to be restarted.

No user sessions are running outdated binaries.

No VM guests are running outdated hypervisor (qemu) binaries on this host.
root@myVM:~#  sudo docker run hello-world
Unable to find image 'hello-world:latest' locally
latest: Pulling from library/hello-world
c1ec31eb5944: Pull complete
```

latest: Pulling from library/hello-world
c1ec31eb5944: Pull complete
Digest: sha256:1408fec50309afee38f3535383f5b09419e6dc0925bc69891e79d84cc4cdcec6
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/

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

root@myVM:~# docker

Usage: docker [OPTIONS] COMMAND

A self-sufficient runtime for containers

Common Commands:
  run   Create and run a new container from an image
  exec   Execute a command in a running container
  ps   List containers
  build   Build an image from a Dockerfile
  pull   Download an image from a registry
  push   Upload an image to a registry
  images   List images
  login   Log in to a registry
  logout   Log out from a registry
  search   Search Docker Hub for images
  version   Show the Docker version information
  info   Display system-wide information

Management Commands:
  builder   Manage builds
  buildx*   Docker Buildx

```
  builder     Manage builds
  buildx*     Docker Buildx
  compose*    Docker Compose
  container   Manage containers
  context     Manage contexts
  image       Manage images
  manifest    Manage Docker image manifests and manifest lists
  network     Manage networks
  plugin      Manage plugins
  system      Manage Docker
  trust       Manage trust on Docker images
  volume      Manage volumes

Swarm Commands:
  swarm       Manage Swarm

Commands:
  attach      Attach local standard input, output, and error streams to a running container
  commit      Create a new image from a container's changes
  cp          Copy files/folders between a container and the local filesystem
  create      Create a new container
  diff        Inspect changes to files or directories on a container's filesystem
  events      Get real time events from the server
  export      Export a container's filesystem as a tar archive
  history     Show the history of an image
  import      Import the contents from a tarball to create a filesystem image
  inspect     Return low-level information on Docker objects
  kill        Kill one or more running containers
  load        Load an image from a tar archive or STDIN
  logs        Fetch the logs of a container
  pause       Pause all processes within one or more containers
  port        List port mappings or a specific mapping for the container
  rename      Rename a container
  restart     Restart one or more containers
  rm          Remove one or more containers
  rmi         Remove one or more images
  save        Save one or more images to a tar archive (streamed to STDOUT by default)
  start       Start one or more stopped containers
  stats       Display a live stream of container(s) resource usage statistics
  stop        Stop one or more running containers
  tag         Create a tag TARGET_IMAGE that refers to SOURCE_IMAGE
  top         Display the running processes of a container
  unpause     Unpause all processes within one or more containers
  update      Update configuration of one or more containers
  wait        Block until one or more containers stop, then print their exit codes

Global Options:
      --config string      Location of client config files (default "/root/.docker")
  -c, --context string     Name of the context to use to connect to the daemon
```

```
                        (overrides DOCKER_HOST env var and default context set with
                        "docker context use")
  -D, --debug           Enable debug mode
  -H, --host list       Daemon socket to connect to
  -l, --log-level string Set the logging level ("debug", "info", "warn", "error",
                        "fatal") (default "info")
      --tls             Use TLS; implied by --tlsverify
      --tlscacert string Trust certs signed only by this CA (default
                        "/root/.docker/ca.pem")
      --tlscert string  Path to TLS certificate file (default "/root/.docker/cert.pem")
      --tlskey string   Path to TLS key file (default "/root/.docker/key.pem")
      --tlsverify        Use TLS and verify the remote
  -v, --version         Print version information and quit

Run 'docker COMMAND --help' for more information on a command.

For more help on how to use Docker, head to https://docs.docker.com/go/guides/
root@myVM:~# systemctl status docker
● docker.service - Docker Application Container Engine
     Loaded: loaded (/usr/lib/systemd/system/docker.service; enabled; preset: enabled)
     Active: active (running) since Tue 2024-08-13 04:43:45 UTC; 6min ago
TriggeredBy: ● docker.socket
       Docs: https://docs.docker.com
   Main PID: 2874 (dockerd)
      Tasks: 11
     Memory: 28.8M (peak: 30.8M)
        CPU: 645ms
     CGroup: /system.slice/docker.service
             └─2874 /usr/bin/dockerd -H fd:// --containerd=/run/containerd/containerd.sock

Aug 13 04:43:44 myVM dockerd[2874]: time="2024-08-13T04:43:44.653586621Z" level=info msg="St>
Aug 13 04:43:44 myVM dockerd[2874]: time="2024-08-13T04:43:44.656669452Z" level=info msg="de>
Aug 13 04:43:44 myVM dockerd[2874]: time="2024-08-13T04:43:44.779973605Z" level=info msg="Lo>
Aug 13 04:43:45 myVM dockerd[2874]: time="2024-08-13T04:43:45.263426455Z" level=info msg="Lo>
Aug 13 04:43:45 myVM dockerd[2874]: time="2024-08-13T04:43:45.290701828Z" level=warning msg=>
Aug 13 04:43:45 myVM dockerd[2874]: time="2024-08-13T04:43:45.290966830Z" level=info msg="Do>
Aug 13 04:43:45 myVM dockerd[2874]: time="2024-08-13T04:43:45.291136632Z" level=info msg="Da>
Aug 13 04:43:45 myVM dockerd[2874]: time="2024-08-13T04:43:45.370857428Z" level=info msg="AP>
Aug 13 04:43:45 myVM systemd[1]: Started docker.service - Docker Application Container Engin>
Aug 13 04:44:13 myVM dockerd[2874]: time="2024-08-13T04:44:13.409416919Z" level=info msg="ig>
 ESCOC
r Engine
ocker.service; enabled; preset: enabled)
8-13 04:43:45 UTC; 6min ago
```

```
--containerd=/run/containerd/containerd.sock

-08-13T04:43:44.653586621Z" level=info msg="Starting up"
-08-13T04:43:44.656669452Z" level=info msg="detected 127.0.0.53 nameserver, assuming systemd>
-08-13T04:43:44.779973605Z" level=info msg="Loading containers: start."
-08-13T04:43:45.263426455Z" level=info msg="Loading containers: done."
-08-13T04:43:45.290701828Z" level=warning msg="Not using native diff for overlay2, this may >
-08-13T04:43:45.290966830Z" level=info msg="Docker daemon" commit=cc13f95 containerd-snapsho>
-08-13T04:43:45.291136632Z" level=info msg="Daemon has completed initialization"
-08-13T04:43:45.370857428Z" level=info msg="API listen on /run/docker.sock"
r.service - Docker Application Container Engine.
-08-13T04:44:13.409416919Z" level=info msg="ignoring event" container=9a11591fb226fb2646374f>
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root@myVM:~# docker container create nginx
Unable to find image 'nginx:latest' locally
latest: Pulling from library/nginx
efc2b5ad9eec: Pull complete
8fe9a55eb80f: Pull complete
045037a63be8: Pull complete
7111b42b4bfa: Pull complete
3dfc528a4df9: Pull complete
9e891cdb453b: Pull complete
0f11e17345c5: Pull complete
Digest: sha256:6af79ae5de407283dcea8b00d5c37ace95441fd58a8b1d2aa1ed93f5511bb18c
```

```
-08-13T04:43:45.370857428Z" level=info msg="API listen on /run/docker.sock"
r.service - Docker Application Container Engine.
-08-13T04:44:13.409416919Z" level=info msg="ignoring event" container=9a11591fb226fb2646374f
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root@myVM:~# docker container create nginx
Unable to find image 'nginx:latest' locally
latest: Pulling from library/nginx
efc2b5ad9eec: Pull complete
8fe9a55eb80f: Pull complete
045037a63be8: Pull complete
7111b42b4bfa: Pull complete
3dfc528a4df9: Pull complete
9e891cdb453b: Pull complete
0f11e17345c5: Pull complete
Digest: sha256:6af79ae5de407283dcea8b00d5c37ace95441fd58a8b1d2aa1ed93f5511bb18c
Status: Downloaded newer image for nginx:latest
b6ad522700512ed37215d75be6b8205550a8ef19bc29ef9ed7ee7a6c4b5941d9
root@myVM:~# docker container ls -a
CONTAINER ID   IMAGE        COMMAND            CREATED         STATUS
    PORTS      NAMES
b6ad52270051   nginx        "/docker-entrypoint.…"  19 seconds ago  Created
           trusting_bouman
9a11591fb226   hello-world  "/hello"               7 minutes ago   Exited (0) 7 minutes a
go         charming_solomon
root@myVM:~#
```

```
Unable to find image 'nginx:latest' locally
latest: Pulling from library/nginx
efc2b5ad9eec: Pull complete
8fe9a55eb80f: Pull complete
045037a63be8: Pull complete
7111b42b4bfa: Pull complete
3dfc528a4df9: Pull complete
9e891cdb453b: Pull complete
0f11e17345c5: Pull complete
Digest: sha256:6af79ae5de407283dcea8b00d5c37ace95441fd58a8b1d2aa1ed93f5511bb18c
Status: Downloaded newer image for nginx:latest
b6ad522700512ed37215d75be6b8205550a8ef19bc29ef9ed7ee7a6c4b5941d9
root@myVM:~# docker container ls -a
CONTAINER ID   IMAGE          COMMAND                 CREATED         STATUS
     PORTS      NAMES
b6ad52270051   nginx          "/docker-entrypoint.…"  19 seconds ago  Created
             trusting_bouman
9a11591fb226   hello-world    "/hello"                7 minutes ago   Exited (0) 7 minutes a
go           charming_solomon
root@myVM:~# # docker container create --name web01 nginx
root@myVM:~# docker container create --name web01 nginx
5e360c47e659149bbd74308cb30311573a61c12acc53cef0f4e36bf25d4db480
root@myVM:~# docker containe ls -a
unknown shorthand flag: 'a' in -a
See 'docker --help'.

Usage:  docker [OPTIONS] COMMAND

A self-sufficient runtime for containers

Common Commands:
  run         Create and run a new container from an image
  exec        Execute a command in a running container
  ps          List containers
  build       Build an image from a Dockerfile
  pull        Download an image from a registry
  push        Upload an image to a registry
  images      List images
  login       Log in to a registry
  logout      Log out from a registry
  search      Search Docker Hub for images
  version     Show the Docker version information
  info        Display system-wide information

Management Commands:
  builder     Manage builds
  buildx*     Docker Buildx
  compose*    Docker Compose
  container   Manage containers
```

```
  context     Manage contexts
  image       Manage images
  manifest    Manage Docker image manifests and manifest lists
  network     Manage networks
  plugin      Manage plugins
  system      Manage Docker
  trust       Manage trust on Docker images
  volume      Manage volumes

Swarm Commands:
  swarm       Manage Swarm

Commands:
  attach      Attach local standard input, output, and error streams to a running container
  commit      Create a new image from a container's changes
  cp          Copy files/folders between a container and the local filesystem
  create      Create a new container
  diff        Inspect changes to files or directories on a container's filesystem
  events      Get real time events from the server
  export      Export a container's filesystem as a tar archive
  history     Show the history of an image
  import      Import the contents from a tarball to create a filesystem image
  inspect     Return low-level information on Docker objects
  kill        Kill one or more running containers
  load        Load an image from a tar archive or STDIN
  logs        Fetch the logs of a container
  pause       Pause all processes within one or more containers
  port        List port mappings or a specific mapping for the container
  rename      Rename a container
  restart     Restart one or more containers
  rm          Remove one or more containers
  rmi         Remove one or more images
  save        Save one or more images to a tar archive (streamed to STDOUT by default)
  start       Start one or more stopped containers
  stats       Display a live stream of container(s) resource usage statistics
  stop        Stop one or more running containers
  tag         Create a tag TARGET_IMAGE that refers to SOURCE_IMAGE
  top         Display the running processes of a container
  unpause     Unpause all processes within one or more containers
  update      Update configuration of one or more containers
  wait        Block until one or more containers stop, then print their exit codes

Global Options:
      --config string       Location of client config files (default "/root/.docker")
  -c, --context string      Name of the context to use to connect to the daemon
                            (overrides DOCKER_HOST env var and default context set with
                            "docker context use")
  -D, --debug               Enable debug mode
  -H, --host list           Daemon socket to connect to
```

```
  -D, --debug              Enable debug mode
  -H, --host list          Daemon socket to connect to
  -l, --log-level string   Set the logging level ("debug", "info", "warn", "error",
                           "fatal") (default "info")
      --tls                Use TLS; implied by --tlsverify
      --tlscacert string   Trust certs signed only by this CA (default
                           "/root/.docker/ca.pem")
      --tlscert string     Path to TLS certificate file (default "/root/.docker/cert.pem")
      --tlskey string      Path to TLS key file (default "/root/.docker/key.pem")
      --tlsverify           Use TLS and verify the remote
  -v, --version            Print version information and quit

Run 'docker COMMAND --help' for more information on a command.

For more help on how to use Docker, head to https://docs.docker.com/go/guides/

root@myVM:~# docker container start web01
web01
root@myVM:~# docker container ls
CONTAINER ID   IMAGE      COMMAND                  CREATED          STATUS         PORTS
NAMES
5e360c47e659   nginx      "/docker-entrypoint.…"   28 minutes ago   Up 24 minutes  80/tcp
web01
root@myVM:~# docker container run --name server01 centos
Unable to find image 'centos:latest' locally
latest: Pulling from library/centos
a1d0c7532777: Pull complete
Digest: sha256:a27fd8080b517143cbbbab9dfb7c8571c40d67d534bbdee55bd6c473f432b177
Status: Downloaded newer image for centos:latest
root@myVM:~# docker container ls -a
CONTAINER ID   IMAGE        COMMAND                  CREATED             STATUS
            PORTS      NAMES
96c3164ddce7   centos       "/bin/bash"              33 seconds ago      Exited (0) 31 secon
ds ago                  server01
5e360c47e659   nginx        "/docker-entrypoint.…"   30 minutes ago      Up 26 minutes
          80/tcp     web01
b6ad52270051   nginx        "/docker-entrypoint.…"   About an hour ago   Created
                 trusting_bouman
9a11591fb226   hello-world  "/hello"                 About an hour ago   Exited (0) About an
 hour ago               charming_solomon
root@myVM:~# docker container run --name server02 -i -t centos
[root@0b0a85a8e71f /]# ps
    PID TTY          TIME CMD
      1 pts/0    00:00:00 bash
     15 pts/0    00:00:00 ps
[root@0b0a85a8e71f /]# exit
exit
root@myVM:~# docker container ls -a
CONTAINER ID   IMAGE        COMMAND                  CREATED             STATUS
```

```
nameserver 168.63.129.16
search qb0c3dhvpffednttstsfbbhgse.px.internal.cloudapp.net

# Based on host file: '/run/systemd/resolve/resolv.conf' (legacy)
# Overrides: []
root@myVM:~# docker container rename server03 server003
root@myVM:~# docker container ls
CONTAINER ID   IMAGE     COMMAND          CREATED         STATUS         PORTS
NAMES
0dfcac480a26   centos    "/bin/bash"      5 minutes ago   Up 5 minutes
server003
5e360c47e659   nginx     "/docker-entrypoint.…"   40 minutes ago   Up 36 minutes    80/tcp
web01
root@myVM:~# docker container pause server003
server003
root@myVM:~# docker container ls
CONTAINER ID   IMAGE     COMMAND          CREATED         STATUS                  PO
RTS     NAMES
0dfcac480a26   centos    "/bin/bash"      6 minutes ago   Up 6 minutes (Paused)
        server003
5e360c47e659   nginx     "/docker-entrypoint.…"   41 minutes ago   Up 36 minutes           80
/tcp    web01
root@myVM:~# docker container unpause server003
server003
root@myVM:~# docker container ls
CONTAINER ID   IMAGE     COMMAND          CREATED         STATUS         PORTS
NAMES
0dfcac480a26   centos    "/bin/bash"      6 minutes ago   Up 6 minutes
server003
5e360c47e659   nginx     "/docker-entrypoint.…"   42 minutes ago   Up 37 minutes    80/tcp
web01
root@myVM:~# docker container stop server003
server003
root@myVM:~# docker container ls -a
CONTAINER ID   IMAGE        COMMAND              CREATED          STATUS
        PORTS     NAMES
0dfcac480a26   centos       "/bin/bash"          7 minutes ago    Exited (0) 11 secon
ds ago           server003
0b0a85a8e71f   centos       "/bin/bash"          10 minutes ago   Exited (0) 9 minute
s ago            server02
96c3164ddce7   centos       "/bin/bash"          13 minutes ago   Exited (0) 13 minut
es ago           server01
5e360c47e659   nginx        "/docker-entrypoint.…"   42 minutes ago   Up 38 minutes
        80/tcp    web01
b6ad52270051   nginx        "/docker-entrypoint.…"   About an hour ago   Created
              trusting_bouman
9a11591fb226   hello-world   "/hello"             2 hours ago      Exited (0) 2 hours
ago              charming_solomon
```

```
9a11591fb226    hello-world    "/hello"              2 hours ago        Exited (0) 2 hours
ago              charming_solomon
root@myVM:~# docker containr start server003
docker: 'containr' is not a docker command.
See 'docker --help'
root@myVM:~# docker container start server003
server003
root@myVM:~# docker container ls -a
CONTAINER ID    IMAGE          COMMAND              CREATED            STATUS
        PORTS        NAMES
0dfcac480a26    centos         "/bin/bash"          9 minutes ago      Up 19 seconds
                server003
0b0a85a8e71f    centos         "/bin/bash"          12 minutes ago     Exited (0) 11 minut
es ago          server02
96c3164ddce7    centos         "/bin/bash"          14 minutes ago     Exited (0) 14 minut
es ago          server01
5e360c47e659    nginx          "/docker-entrypoint.…"   44 minutes ago     Up 40 minutes
        80/tcp   web01
b6ad52270051    nginx          "/docker-entrypoint.…"   About an hour ago  Created
                trusting_bouman
9a11591fb226    hello-world    "/hello"              2 hours ago        Exited (0) 2 hours
ago              charming_solomon
root@myVM:~# docker container kill server003
server003
root@myVM:~# docker container ls -a
CONTAINER ID    IMAGE          COMMAND              CREATED            STATUS
        PORTS        NAMES
0dfcac480a26    centos         "/bin/bash"          10 minutes ago     Exited (137) 13 sec
onds ago        server003
0b0a85a8e71f    centos         "/bin/bash"          13 minutes ago     Exited (0) 12 minut
es ago          server02
96c3164ddce7    centos         "/bin/bash"          15 minutes ago     Exited (0) 15 minut
es ago          server01
5e360c47e659    nginx          "/docker-entrypoint.…"   45 minutes ago     Up 41 minutes
        80/tcp   web01
b6ad52270051    nginx          "/docker-entrypoint.…"   About an hour ago  Created
                trusting_bouman
9a11591fb226    hello-world    "/hello"              2 hours ago        Exited (0) 2 hours
ago              charming_solomon
root@myVM:~# docker container restart server003
server003
root@myVM:~# docker container ls -a
CONTAINER ID    IMAGE          COMMAND              CREATED            STATUS
        PORTS        NAMES
0dfcac480a26    centos         "/bin/bash"          11 minutes ago     Up 9 seconds
                server003
0b0a85a8e71f    centos         "/bin/bash"          14 minutes ago     Exited (0) 13 minut
es ago          server02
96c3164ddce7    centos         "/bin/bash"          16 minutes ago     Exited (0) 16 minut
```

```
es ago          server01
5e360c47e659   nginx       "/docker-entrypoint.…"   46 minutes ago      Up 41 minutes
       80/tcp    web01
b6ad52270051   nginx       "/docker-entrypoint.…"    About an hour ago   Created
               trusting_bouman
9a11591fb226   hello-world   "/hello"               2 hours ago         Exited (0) 2 hours
ago            charming_solomon
root@myVM:~# docker container run --name web02 -dit -p 8080:80 ngix
Unable to find image 'ngix:latest' locally
docker: Error response from daemon: pull access denied for ngix, repository does not exist or
 may require 'docker login': denied: requested access to the resource is denied.
See 'docker run --help'.
root@myVM:~# docker container run --name web02 -dit -p 8080:80 nginx
8fa9af116fa69ca97e712b883e782dcbb74bef125f033a068729615f354f3a82
root@myVM:~# docker container ls
CONTAINER ID   IMAGE       COMMAND                  CREATED         STATUS          PORTS
                           NAMES
8fa9af116fa6   nginx       "/docker-entrypoint.…"   20 seconds ago   Up 20 seconds   0.0.0.0:80
80->80/tcp, :::8080->80/tcp   web02
0dfcac480a26   centos      "/bin/bash"              13 minutes ago   Up 2 minutes
                           server003
5e360c47e659   nginx       "/docker-entrypoint.…"   48 minutes ago   Up 44 minutes   80/tcp
                           web01
root@myVM:~# docker container run --name web03 -dit -P nginx
fcd2949948f616f46f244de6051364c4fb7c7090ca6ca33e5f099410e61f09a7
root@myVM:~# docker container ls
CONTAINER ID   IMAGE       COMMAND                  CREATED             STATUS          PO
RTS                        NAMES
fcd2949948f6   nginx       "/docker-entrypoint.…"   12 seconds ago      Up 11 seconds   0.
0.0.0:32768->80/tcp, :::32768->80/tcp   web03
8fa9af116fa6   nginx       "/docker-entrypoint.…"   About a minute ago  Up About a minute   0.
0.0.0:8080->80/tcp, :::8080->80/tcp   web02
0dfcac480a26   centos      "/bin/bash"              14 minutes ago      Up 3 minutes
                           server003
5e360c47e659   nginx       "/docker-entrypoint.…"   49 minutes ago      Up 45 minutes   80
/tcp                       web01
root@myVM:~# docker container inspect web02 | grep -e "HostPort" -e "IPAddress" | uniq
                "HostPort": "8080"
          "SecondaryIPAddresses": null,
          "IPAddress": "172.17.0.4",
                "IPAddress": "172.17.0.4",
root@myVM:~# curl 172.17.0.4
<!DOCTYPE html>
<html>
<head>
<title>Welcome to nginx!</title>
<style>
html { color-scheme: light dark; }
body { width: 35em; margin: 0 auto;
```

```
2024-08-13T06:07:33.872989264Z         1 pts/0    00:00:00 bash
2024-08-13T06:07:33.872994364Z        15 pts/0    00:00:00 ps
2024-08-13T06:14:06.253877470Z [root@0dfcac480a26 /]# exit
2024-08-13T06docker container prune -fdfcac480a26 /]# root@myVM:~# docker container prune -f
Deleted Containers:
0b0a85a8e71ffd08dabb8f6e48e08505981ba339802d742c9ec7464455580dbe
96c3164ddce75e43f37d6821da986ab2bc0bb184d86b46f39aa139392858ba91
b6ad522700512ed37215d75be6b8205550a8ef19bc29ef9ed7ee7a6c4b5941d9
9a11591fb226fb2646374f81d10fe959b773c1265a1746bec2e195fb32d31686

Total reclaimed space: 8B
root@myVM:~# docker container ls -a
CONTAINER ID   IMAGE     COMMAND                  CREATED       STATUS       PORTS
                        NAMES
fcd2949948f6   nginx     "/docker-entrypoint.…"   5 hours ago   Up 5 hours   0.0.0.0:32768->8
0/tcp, :::32768->80/tcp   web03
8fa9af116fa6   nginx     "/docker-entrypoint.…"   5 hours ago   Up 5 hours   0.0.0.0:8080->80
/tcp, :::8080->80/tcp     web02
0dfcac480a26   centos    "/bin/bash"              5 hours ago   Up 5 hours
                        server003
5e360c47e659   nginx     "/docker-entrypoint.…"   6 hours ago   Up 6 hours   80/tcp
                        web01
root@myVM:~#  docker container stop server003
server003
root@myVM:~# docker container rm server003
server003
root@myVM:~# docker container rm web01 web02 web03 -f
web01
web02
web03
root@myVM:~# docker container ls -a
CONTAINER ID   IMAGE     COMMAND     CREATED     STATUS      PORTS       NAMES
root@myVM:~# docker image rm nginx centos
Untagged: nginx:latest
Untagged: nginx@sha256:6af79ae5de407283dcea8b00d5c37ace95441fd58a8b1d2aa1ed93f5511bb18c
Deleted: sha256:a72860cb95fd59e9c696c66441c64f18e66915fa26b249911e83c3854477ed9a
Deleted: sha256:1188c692bee9694c47db34046023dbd938d88f303f216ef689863741b2d1a900
Deleted: sha256:3eefccfd7e5fd8bbb2bd982509dc79206b056f22dd2b14553951a743833b0d09
Deleted: sha256:5234252bfd2bba1548a4998869e9a01aedfe3b319ce61acbe98f8aec223640e7
Deleted: sha256:b292d631e6ca5af8269dc2cf3ec47be1f9faa0865b2aaa794daa2b8c25ea8cb4
Deleted: sha256:beda8840654459fe0efc1cd0bcae6a00b65b469cc999ebc41608b53c51fb93b4
Deleted: sha256:7a69d5090b2e7d873a365c81c590b2e6b87a702178b22b3c32c50d35eb7616fc
Deleted: sha256:e0781bc8667fb5ebf954df4ae52997f6f5568ec9f07e21e5db7c9d324ed41e1f
Untagged: centos:latest
Untagged: centos@sha256:a27fd8080b517143cbbbab9dfb7c8571c40d67d534bbdee55bd6c473f432b177
Deleted: sha256:5d0da3dc976460b72c77d94c8a1ad043720b0416bfc16c52c45d4847e53fadb6
Deleted: sha256:74ddd0ec08fa43d09f32636ba91a0a3053b02cb4627c35051aff89f853606b59
root@myVM:~#
```

```
CONTAINER ID    IMAGE       COMMAND              CREATED       STATUS        PORTS
                            NAMES
fcd2949948f6    nginx       "/docker-entrypoint.…"   5 hours ago   Up 5 hours    0.0.0.0:32768->8
0/tcp, :::32768->80/tcp     web03
8fa9af116fa6    nginx       "/docker-entrypoint.…"   5 hours ago   Up 5 hours    0.0.0.0:8080->80
/tcp, :::8080->80/tcp       web02
0dfcac480a26    centos      "/bin/bash"          5 hours ago   Up 5 hours
                            server003
5e360c47e659    nginx       "/docker-entrypoint.…"   6 hours ago   Up 6 hours    80/tcp
                            web01
root@myVM:~#  docker container stop server003
server003
root@myVM:~# docker container rm server003
server003
root@myVM:~# docker container rm web01 web02 web03 -f
web01
web02
web03
root@myVM:~# docker container ls -a
CONTAINER ID    IMAGE       COMMAND     CREATED     STATUS      PORTS       NAMES
root@myVM:~# docker image rm nginx centos
Untagged: nginx:latest
Untagged: nginx@sha256:6af79ae5de407283dcea8b00d5c37ace95441fd58a8b1d2aa1ed93f5511bb18c
Deleted: sha256:a72860cb95fd59e9c696c66441c64f18e66915fa26b249911e83c3854477ed9a
Deleted: sha256:1188c692bee9694c47db34046023dbd938d88f303f216ef689863741b2d1a900
Deleted: sha256:3eefccfd7e5fd8bbb2bd982509dc79206b056f22dd2b14553951a743833b0d09
Deleted: sha256:5234252bfd2bba1548a4998869e9a01aedfe3b319ce61acbe98f8aec223640e7
Deleted: sha256:b292d631e6ca5af8269dc2cf3ec47be1f9faa0865b2aaa794daa2b8c25ea8cb4
Deleted: sha256:beda8840654459fe0efc1cd0bcae6a00b65b469cc999ebc41608b53c51fb93b4
Deleted: sha256:7a69d5090b2e7d873a365c81c590b2e6b87a702178b22b3c32c50d35eb7616fc
Deleted: sha256:e0781bc8667fb5ebf954df4ae52997f6f5568ec9f07e21e5db7c9d324ed41e1f
Untagged: centos:latest
Untagged: centos@sha256:a27fd8080b517143cbbbab9dfb7c8571c40d67d534bbdee55bd6c473f432b177
Deleted: sha256:5d0da3dc976460b72c77d94c8a1ad043720b0416bfc16c52c45d4847e53fadb6
Deleted: sha256:74ddd0ec08fa43d09f32636ba91a0a3053b02cb4627c35051aff89f853606b59
root@myVM:~# docker container rm `docker container ls -a -q` -f
"docker container rm" requires at least 1 argument.
See 'docker container rm --help'.

Usage:  docker container rm [OPTIONS] CONTAINER [CONTAINER...]

Remove one or more containers
root@myVM:~# docker image rm `docker image ls -q` -f
Untagged: hello-world:latest
Untagged: hello-world@sha256:1408fec50309afee38f3535383f5b09419e6dc0925bc69891e79d84cc4cdcec6
Deleted: sha256:d2c94e258dcb3c5ac2798d32e1249e42ef01cba4841c2234249495f87264ac5a
Deleted: sha256:ac28800ec8bb38d5c35b49d45a6ac4777544941199075dff8c4eb63e093aa81e
root@myVM:~#
```