1 - check the docker version installed

```
amr@amr-VirtualBox:~/Docker_Tasks$ docker version
Client: Docker Engine - Community
 Version:           24.0.0
 API version:       1.43
 Go version:        go1.20.4
 Git commit:        98fdcd7
 Built:             Mon May 15 18:49:22 2023
 OS/Arch:           linux/amd64
 Context:           default

Server: Docker Engine - Community
 Engine:
  Version:          24.0.0
  API version:      1.43 (minimum version 1.12)
  Go version:       go1.20.4
  Git commit:       1331b8c
  Built:            Mon May 15 18:49:22 2023
  OS/Arch:          linux/amd64
  Experimental:     false
 containerd:
  Version:          1.6.21
  GitCommit:        3dce8eb055cbb6872793272b4f20ed16117344f8
 runc:
  Version:          1.1.7
  GitCommit:        v1.1.7-0-g860f061
 docker-init:
  Version:          0.19.0
  GitCommit:        de40ad0
amr@amr-VirtualBox:~/Docker_Tasks$
```

2 - run docker container for hello-world

```
amr@amr-VirtualBox:~/Docker_Tasks$ docker container run hello-world
Unable to find image 'hello-world:latest' locally
latest: Pulling from library/hello-world
719385e32844: Pull complete
Digest: sha256:fc6cf906cbfa013e80938cdf0bb199fbdbb86d6e3e013783e5a766f50f5dbce0
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/

amr@amr-VirtualBox:~/Docker_Tasks$
```

3 - run docker container redis in detached mode

```
amr@amr-VirtualBox:~/Docker_Tasks$ sudo docker run -d --name red-con redis
fdec2cc7872bccd93203f1eb3d7a74c7815890213c879b284a9b6e39599d1fdd
amr@amr-VirtualBox:~/Docker_Tasks$
```

4 - try to stop the running redis container

```
amr@amr-VirtualBox:~/Docker_Tasks$ docker stop red-con
red-con
amr@amr-VirtualBox:~/Docker_Tasks$
```

5 - check the present container o the host

```
amr@amr-VirtualBox:~/Docker_Tasks$ docker ps -a
CONTAINER ID   IMAGE          COMMAND                CREATED         STATUS                     PORTS                                       NAMES
fdec2cc7872b   redis          "docker-entrypoint.s…"  About a minute ago  Exited (0) 29 seconds ago                                              red-con
8606c262ba99   hello-world    "/hello"               3 minutes ago   Exited (0) 3 minutes ago                                               quizzical_bhabha
14760b05288b   postgres       "docker-entrypoint.s…"  2 days ago      Exited (0) 45 hours ago    0.0.0.0:5432->5432/tcp, :::5432->5432/tcp   postgress
b76a1a57594f   postgres       "docker-entrypoint.s…"  2 days ago      Exited (0) 2 days ago                                                  postgres
89f506726402   8123586acace   "/docker-entrypoint.…"  8 days ago      Exited (0) 8 days ago                                                  newhtml
6418943e79c5   a5ec82de4ac9   "/docker-entrypoint.…"  8 days ago      Exited (0) 8 days ago                                                  newimage
fe3ece6a9ef2   03a201f4dede   "/docker-entrypoint.…"  8 days ago      Exited (0) 8 days ago                                                  ourimage
bb0957712814   03a201f4dede   "/docker-entrypoint.…"  8 days ago      Exited (0) 8 days ago                                                  musing_elbakyan
cb849a4b2cff   03a201f4dede   "/docker-entrypoint.…"  8 days ago      Created                                                                focused_bassi
9c1ea8fe80d6   f19731ba6c83   "redis-server"         8 days ago      Exited (0) 8 days ago                                                  elated_robinson
5d793ef66bc5   b653085e69fc   "echo 'Hello Amr, I'…"  8 days ago      Exited (0) 8 days ago                                                  heuristic_hoover
e2f9514e8210   6fffc104c4fa   "echo 'Hello Amr, I'…"  8 days ago      Exited (0) 8 days ago                                                  bold_blackwell
4938a17a296a   6fffc104c4fa   "echo 'Hello Amr, I'…"  8 days ago      Exited (0) 8 days ago                                                  pensive_galois
22aefea8bf99   nginx          "/docker-entrypoint.…"  8 days ago      Exited (0) 8 days ago                                                  n1
ff708d7701bc   redis          "docker-entrypoint.s…"  8 days ago      Exited (0) 8 days ago      6379/tcp                                    peaceful_wright
amr@amr-VirtualBox:~/Docker_Tasks$
```

6 - check the ID of the redis container

```
amr@amr-VirtualBox:~/Docker_Tasks$ docker ps -a --filter "name=red-con" --format "{{.ID}}"
fdec2cc7872b
amr@amr-VirtualBox:~/Docker_Tasks$
```

7 - delete image redis

```
amr@amr-VirtualBox:~/Docker_Tasks$ docker rm red-con
red-con
amr@amr-VirtualBox:~/Docker_Tasks$
```

8 - pull image from nginx:1.14-alpine

```
amr@amr-VirtualBox:~/Docker_Tasks$ docker pull nginx:1.14-alpine
1.14-alpine: Pulling from library/nginx
bdf0201b3a05: Pull complete
3d0a573c81ed: Pull complete
8129faeb2eb6: Pull complete
3dc99f571daf: Pull complete
Digest: sha256:485b610fefec7ff6c463ced9623314a04ed67e3945b9c08d7e53a47f6d108dc7
Status: Downloaded newer image for nginx:1.14-alpine
docker.io/library/nginx:1.14-alpine
amr@amr-VirtualBox:~/Docker_Tasks$
```

9 - Run an instance of the ubuntu image to run the sleep 1000 command at startup. Exec into the container and touch a file called test-file

Exec into the container and touch a file called test-file.

```
amr@amr-VirtualBox: ~/Docker_Tasks
amr@amr-VirtualBox:~/Docker_Tasks$ docker run -d --name ubun-con ubuntu sleep 1000
Unable to find image 'ubuntu:latest' locally
latest: Pulling from library/ubuntu
dbf6a9befcde: Pull complete
Digest: sha256:dfd64a3b4296d8c9b62aa3309984f8620b98d87e47492599ee20739e8eb54fbf
Status: Downloaded newer image for ubuntu:latest
794d783dcbcd06e33592739d96d8a81f97962962aa74a463bffff1a518682823
amr@amr-VirtualBox:~/Docker_Tasks$ docker exec ubun-con ls | touch test-file
amr@amr-VirtualBox:~/Docker_Tasks$ ls
test-file
amr@amr-VirtualBox:~/Docker_Tasks$
```

10 - delete all the images from the host

```
amr@amr-VirtualBox: ~/Docker_Tasks
amr@amr-VirtualBox:~/Docker_Tasks$ docker rmi $(docker images -q)
Untagged: redis:alpine
Untagged: redis@sha256:1f27b9eb680ffcf6c68966c0d5f578bb1b030ca7cd8ec4e758c429e7f72005a0
Deleted: sha256:f37f9f678836efb038d6368daa868cc4a88c127f919e73dc8904fcb1c5308eae
Deleted: sha256:65105cae2424331ca986f099936440840f5ccb2cca4d933e95b31bf971cc8388
Deleted: sha256:c42f0c92b315f752e0954bd5ba2a10117001dce3aa7749e967469c780ae16042
Deleted: sha256:6a381eb65020bd7721e104caed90f705b86bd7b85990051e7f902cfa4890d62c
Deleted: sha256:c57386ae9ce65c2319b4be4ddd3cb69909e1aba8197be6ceb2bc5ee344721a62
Deleted: sha256:b7a42fa5eeb52490970bfc31ff60a4fe3b06b619fee1652633cbe08f114f6dae
Untagged: nginx:1.14-alpine
Untagged: nginx@sha256:485b610fefec7ff6c463ced9623314a04ed67e3945b9c08d7e53a47f6d108dc7
Deleted: sha256:8a2fb25a19f5dc1528b7a3fabe8b3145ff57fe10e4f1edac6c718a3cf4aa4b73
Deleted: sha256:f68a8bcb9dbd06e0d2750eabf63c45f51734a72831ed650d2349775865d5fc20
Deleted: sha256:cbf2c7789332fe231e8defa490527a7b2c3ae8589997ceee00895f3263f0a8cf
Deleted: sha256:894f3fad7e6ecd7f24e88340a44b7b73663a85c0eb7740e7ade169e9d8491a4c
Deleted: sha256:a464c54f93a9e88fc1d33df1e0e39cca427d60145a360962e8f19a1dbf900da9
Error response from daemon: conflict: unable to delete 0c88fbae765e (must be forced) - image is being used by stopped container b76a1a57594f
Error response from daemon: conflict: unable to delete f19731ba6c83 (must be forced) - image is being used by stopped container 9c1ea8fe80d6
Error response from daemon: conflict: unable to delete b653085e69fc (must be forced) - image is being used by stopped container 5d793ef66bc5
Error response from daemon: conflict: unable to delete 6fffc104c4fa (must be forced) - image is being used by stopped container e2f9514e8210
Error response from daemon: conflict: unable to delete 9c7a54a9a43c (must be forced) - image is being used by stopped container 8606c262ba99
Error response from daemon: conflict: unable to delete 448a08f1d2f9 (must be forced) - image is being used by stopped container 22aefea8bf99
Error response from daemon: conflict: unable to delete 116cad43b6af (must be forced) - image is referenced in multiple repositories
Error response from daemon: conflict: unable to delete 116cad43b6af (must be forced) - image is referenced in multiple repositories
Error response from daemon: conflict: unable to delete 116cad43b6af (must be forced) - image is referenced in multiple repositories
Error response from daemon: conflict: unable to delete 3b418d7b466a (cannot be forced) - image is being used by running container 794d783dcbcd
amr@amr-VirtualBox:~/Docker_Tasks$ docker rmi 0c88fbae765e f19731ba6c83 b653085e69fc 6fffc104c4fa 9c7a54a9a43c 448a08f1d2f9 116cad43b6af 116cad43b6af 116cad43b6af --force
Untagged: postgres:latest
Untagged: postgres@sha256:40c61dc2f347194e8e28614440d773f0325be7b4998d642e374223ec2d6db7f4
Deleted: sha256:0c88fbae765e8bcdb4c8974c73279e9c00b3bb5ab7e23131e40706430ef2bb2a
Untagged: ourredis:latest
Deleted: sha256:f19731ba6c837666ce3d76fa8a3ef17694168d656a99ac3f75791b2774382e96
Untagged: hello:latest
Deleted: sha256:b653085e69fc8e352f6113b038691a4d710cbd904f3cdf6c1e8fec6e570d90b3
Deleted: sha256:6fffc104c4faa54c7fa541c5d746bbc2b84f0bdb914967132c34f04cd2bbaca5
Untagged: hello-world:latest
Untagged: hello-world@sha256:fc6cf906cbfa013e80938cdf0bb199fbdbb86d6e3e013783e5a766f50f5dbce0
Deleted: sha256:9c7a54a9a43cca047013b82af109fe963fde787f63f9e016fdc3384500c2823d
Untagged: nginx:latest
Untagged: nginx@sha256:480868e8c8c797794257e2abd88d0f9a8809b2fe956cbfbc05dcc0bca1f7cd43
Deleted: sha256:448a08f1d2f94e8db6db9286fd77a3a4f3712786583720a12f1648abb8cace25
```

```
amr@amr-VirtualBox: ~/Docker_Tasks
Error response from daemon: conflict: unable to delete b653085e69fc (must be forced) - image is being used by stopped container 5d793ef66bc5
Error response from daemon: conflict: unable to delete 6fffc104c4fa (must be forced) - image is being used by stopped container e2f9514e8210
Error response from daemon: conflict: unable to delete 9c7a54a9a43c (must be forced) - image is being used by stopped container 8606c262ba99
Error response from daemon: conflict: unable to delete 448a08f1d2f9 (must be forced) - image is being used by stopped container 22aefea8bf99
Error response from daemon: conflict: unable to delete 116cad43b6af (must be forced) - image is referenced in multiple repositories
Error response from daemon: conflict: unable to delete 116cad43b6af (must be forced) - image is referenced in multiple repositories
Error response from daemon: conflict: unable to delete 116cad43b6af (must be forced) - image is referenced in multiple repositories
Error response from daemon: conflict: unable to delete 3b418d7b466a (cannot be forced) - image is being used by running container 794d783dcbcd
amr@amr-VirtualBox:~/Docker_Tasks$ docker rmi 0c88fbae765e f19731ba6c83 b653085e69fc 6fffc104c4fa 9c7a54a9a43c 448a08f1d2f9 116cad43b6af 116cad43b6af 116cad43b6af --force
Untagged: postgres:latest
Untagged: postgres@sha256:40c61dc2f347194e8e28614440d773f0325be7b4998d642e374223ec2d6db7f4
Deleted: sha256:0c88fbae765e8bcdb4c8974c73279e9c00b3bb5ab7e23131e40706430ef2bb2a
Untagged: ourredis:latest
Deleted: sha256:f19731ba6c837666ce3d76fa8a3ef17694168d656a99ac3f75791b2774382e96
Untagged: hello:latest
Deleted: sha256:b653085e69fc8e352f6113b038691a4d710cbd904f3cdf6c1e8fec6e570d90b3
Deleted: sha256:6fffc104c4faa54c7fa541c5d746bbc2b84f0bdb914967132c34f04cd2bbaca5
Untagged: hello-world:latest
Untagged: hello-world@sha256:fc6cf906cbfa013e80938cdf0bb199fbdbb86d6e3e013783e5a766f50f5dbce0
Deleted: sha256:9c7a54a9a43cca047013b82af109fe963fde787f63f9e016fdc3384500c2823d
Untagged: nginx:latest
Untagged: nginx@sha256:480868e8c8c797794257e2abd88d0f9a8809b2fe956cbfbc05dcc0bca1f7cd43
Deleted: sha256:448a08f1d2f94e8db6db9286fd77a3a4f3712786583720a12f1648abb8cace25
Untagged: amrashraf98/redis:dev
Untagged: amrashraf98/redis:latest
Untagged: amrashraf98/redis@sha256:9ca9747b233100676a48cc7806131586213fa5dab86dd1972d6a8732e3a84a4d
Untagged: redis:latest
Untagged: redis@sha256:ea30bef6a1424d032295b90db20a869fc8db76331091543b7a80175cede7d887
Deleted: sha256:116cad43b6aff97c73227088f04da7eaec57aeb40923fc8cc99043663207e944
Error response from daemon: No such image: 116cad43b6af:latest
Error response from daemon: No such image: 116cad43b6af:latest
amr@amr-VirtualBox:~/Docker_Tasks$ docker images
REPOSITORY    TAG       IMAGE ID        CREATED        SIZE
ubuntu        latest    3b418d7b466a    4 weeks ago    77.8MB
amr@amr-VirtualBox:~/Docker_Tasks$ docker rmi 3b418 --force
Error response from daemon: conflict: unable to delete 3b418d7b466a (cannot be forced) - image is being used by running container 794d783dcbcd
amr@amr-VirtualBox:~/Docker_Tasks$ docker stop 794d7
794d7
amr@amr-VirtualBox:~/Docker_Tasks$ docker images
REPOSITORY    TAG       IMAGE ID        CREATED        SIZE
ubuntu        latest    3b418d7b466a    4 weeks ago    77.8MB
amr@amr-VirtualBox:~/Docker_Tasks$ docker rmi 3b418 --force
Untagged: ubuntu:latest
Untagged: ubuntu@sha256:dfd64a3b4296d8c9b62aa3309984f8620b98d87e47492599ee20739e8eb54fbf
Deleted: sha256:3b418d7b466ac6275a6bfcb0c86fbe4422ff6ea0af444a294f82d3bf5173ce74
amr@amr-VirtualBox:~/Docker_Tasks$ docker images
REPOSITORY    TAG       IMAGE ID     CREATED     SIZE
amr@amr-VirtualBox:~/Docker_Tasks$
```