

1. Docker version

To get the currently installed version of docker

```
(base)
chandra@LAPTOP-SNAKEM79 MINGW64 ~
$ docker --version
Docker version 20.10.17, build 100c701
(base)
```

2. Docker pull

To pull images from the docker repository

```
(base)
chandra@LAPTOP-SNAKEM79 MINGW64 ~
$ docker pull docker/getting-started
Using default tag: latest
latest: Pulling from docker/getting-started
Digest: sha256:b558be874169471bd4e65bd6eac8c303b271a7ee8553ba47481b73b2bf597aae
Status: Image is up to date for docker/getting-started:latest
docker.io/docker/getting-started:latest
```

3. Docker build

Build an image from a Dockerfile

```
chandra@LAPTOP-SNAKEM79 MINGW64 /d/Data science industry ready projects/Docker/Hello World
$ docker build -t welcome-app .
Sending build context to Docker daemon 4.096kB
Error response from daemon: dockerfile parse error line 1: FROM requires either one or three arguments
(base)
chandra@LAPTOP-SNAKEM79 MINGW64 /d/Data science industry ready projects/Docker/Hello World
$ docker build -t welcome-app .
Sending build context to Docker daemon 4.096kB
Step 1/5 : FROM python:3.7
3.7: Pulling from library/python
f606d8928ed3: Already exists
47db815c6a45: Already exists
bf4849400000: Already exists
```

4. Docker images

Used to list all the docker images available locally

```
chandra@LAPTOP-SNAKEM79 MINGW64 ~
$ docker images
REPOSITORY          TAG          IMAGE ID          CREATED          SIZE
krishnaik06/welcomeapp  latest      d589bf8ebecc     8 hours ago     1.06GB
docker/getting-started  latest      cb90f98fd791     5 months ago    28.8MB
```

5. Docker run

To create a container from an image

```
(base)
chandra@LAPTOP-SNAKEM79 MINGW64 ~
$ docker run -d -p 80:80 docker/getting-started
89f6bbe5ceb79762a3696aca2fd071a5ba1b7b2d15a615ee54c2b68a806fe3ae
(base)
```

6. Docker ps

To list the running containers

```
chandra@LAPTOP-SNAKEM79 MINGW64 ~  
$ docker ps  
CONTAINER ID   IMAGE                COMMAND                  CREATED        STATUS        PORTS                NAMES  
89f6bbe5ceb7   docker/getting-started "/docker-entrypoint..." 3 minutes ago  Up 3 minutes  0.0.0.0:80->80/tcp    unruffled_banzai
```

7. Docker ps -a

To show all the running and exited containers

```
chandra@LAPTOP-SNAKEM79 MINGW64 /d/Data science industry ready projects/Docker/Hello World  
$ docker ps -a  
CONTAINER ID   IMAGE                COMMAND                  CREATED        STATUS        PORTS                NAMES  
6b18f8546e57   krishnaik06/welcomeapp:latest "python app.py"         22 hours ago  Exited (255) 11  
hours ago      vigilant_lumiere  
e2cd963e22aa   welcome-app         "python app.py"         23 hours ago  Exited (255) 11  
hours ago      0.0.0.0:5000->5000/tcp priceless_bose  
89f6bbe5ceb7   docker/getting-started "/docker-entrypoint..." 2 days ago    Exited (255) 34  
hours ago      0.0.0.0:80->80/tcp    unruffled_banzai
```

8. Docker login

To login to the docker hub repository

```
$ docker login  
Login with your Docker ID to push and pull images from Docker Hub. If you don't have a Docker ID, head  
over to https://hub.docker.com to create one.  
Username: chandra87  
Password:  
Login Succeeded  
  
Logging in with your password grants your terminal complete access to your account.  
For better security, log in with a limited-privilege personal access token. Learn more at https://docs.  
docker.com/go/access-tokens/  
(base)  
chandra@LAPTOP-SNAKEM79 MINGW64 /d/Data science industry ready projects/Docker/Hello World
```

9. Docker push

To push or share a local docker image to a central repository

```
chandra@LAPTOP-SNAKEM79 MINGW64 /d/Data science industry ready projects/Docker/Hello World  
$ docker push chandra87/welcome-app  
Using default tag: latest  
The push refers to repository [docker.io/chandra87/welcome-app]  
50494f5cbb1d: Pushed
```

10. Docker stop

Stops a running container

```
chandra@LAPTOP-SNAKEM79 MINGW64 /d/Data science industry ready projects/Docker/Hello World  
$ docker stop 0b7  
0b7
```

11. Docker remove

To remove one or more images

```
chandra@LAPTOP-SNAKEM79 MINGW64 /d/Data science industry ready projects/Docker/Hello World
$ docker rmi -f welcome-app
Untagged: welcome-app:latest
Deleted: sha256:ef906b2eb18249b7c973d08061f05108e96475c850e875339887f775584d6db9
Deleted: sha256:3f37dc483f4475735dfac1899a41429948bc90007af21aa3b2cfff4126cfbaebe
Deleted: sha256:65d37d3809513a03a70991d0031e4494f487ca6fddd68ed680aed3da0d174199
Deleted: sha256:1990fa33b992b21cd1eeaeac41c2c4c164d6c39a2299bdaa2506bc0f622c73e1
```

12. Docker History

Shows the history of an image

```
chandra@LAPTOP-SNAKEM79 MINGW64 ~
$ docker history krishnaik06/welcomeapp
IMAGE          CREATED          CREATED BY          SIZE      COMMENT
d589bf8ebecca  8 hours ago     CMD ["python" "app.py"]  0B        buildkit.dockerfile.v0
<missing>      8 hours ago     RUN /bin/sh -c pip install -r requirements.t... 156MB     buildkit.dockerfile.v0
<missing>      8 hours ago     WORKDIR /app         0B        buildkit.dockerfile.v0
<missing>      8 hours ago     COPY . /app # buildkit 388B      buildkit.dockerfile.v0
<missing>      2 days ago     /bin/sh -c #(nop) CMD ["python3"]  0B
<missing>      2 days ago     /bin/sh -c set -eux; wget -O get-pip.py "$... 10.2MB
<missing>      2 days ago     /bin/sh -c #(nop) ENV PYTHON_GET_PIP_SHA256... 0B
<missing>      2 days ago     /bin/sh -c #(nop) ENV PYTHON_GET_PIP_URL=ht... 0B
<missing>      2 days ago     /bin/sh -c #(nop) ENV PYTHON_SETUPTOOLS_VER... 0B
<missing>      2 days ago     /bin/sh -c #(nop) ENV PYTHON_PIP_VERSION=22... 0B
<missing>      2 days ago     /bin/sh -c set -eux; for src in idle3 pydoc... 32B
<missing>      2 days ago     /bin/sh -c set -eux; wget -O python.tar.xz... 43.3MB
<missing>      2 days ago     /bin/sh -c #(nop) ENV PYTHON_VERSION=3.7.14  0B
<missing>      2 days ago     /bin/sh -c #(nop) ENV GPG_KEY=0D96DF4D4110E... 0B
<missing>      3 days ago     /bin/sh -c set -eux; apt-get update; apt-g... 18.5MB
<missing>      3 days ago     /bin/sh -c #(nop) ENV LANG=C.UTF-8         0B
<missing>      3 days ago     /bin/sh -c #(nop) ENV PATH=/usr/local/bin:/... 0B
<missing>      3 days ago     /bin/sh -c set -ex; apt-get update; apt-ge... 529MB
<missing>      3 days ago     /bin/sh -c apt-get update && apt-get install... 152MB
<missing>      3 days ago     /bin/sh -c set -ex; if ! command -v gpg > /... 19MB
<missing>      3 days ago     /bin/sh -c set -eux; apt-get update; apt-g... 10.7MB
<missing>      3 days ago     /bin/sh -c #(nop) CMD ["bash"]             0B
<missing>      3 days ago     /bin/sh -c #(nop) ADD file:d1268789456d2cdac... 124MB
```

13. Docker config

Manage docker configs

```
chandra@LAPTOP-SNAKEM79 MINGW64 ~
$ docker config

Usage:  docker config COMMAND

Manage Docker configs

Commands:
  create      Create a config from a file or STDIN
  inspect     Display detailed information on one or more configs
  ls          List configs
  rm          Remove one or more configs
```

14. Docker container

Manage containers

```

chandra@LAPTOP-SNAKEM79 MINGW64 ~
$ docker container

Usage:  docker container COMMAND

Manage containers

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
  exec        Run a command in a running container
  export      Export a container's filesystem as a tar archive
  inspect     Display detailed information on one or more containers
  kill        Kill one or more running containers
  logs        Fetch the logs of a container
  ls          List containers
  pause       Pause all processes within one or more containers
  port        List port mappings or a specific mapping for the container
  prune       Remove all stopped containers
  rename      Rename a container
  restart     Restart one or more containers
  rm          Remove one or more containers
  run         Run a command in a new container
  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
  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

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

```

15. Docker network ls

To list networks

```

chandra@LAPTOP-SNAKEM79 MINGW64 /d/Data science industry ready projects/Docker/Hello World
$ docker network ls

```

NETWORK ID	NAME	DRIVER	SCOPE
da1234db2bdc	bridge	bridge	local
59b437d31175	host	host	local
8127364ac27e	none	null	local