

1. Docker pull is used to download an image.

```
C:\Users\HP>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
```

2. A docker image is a file used to execute a code in a docker Container.

```
C:\Users\HP>docker images
REPOSITORY          TAG          IMAGE ID      CREATED      SIZE
docker/getting-started latest      cb90f98fd791  6 months ago  28.8MB
```

3. Docker runs the container in a detached mode. A container is a Process which runs on the host. The host may be local or remote.

```
C:\Users\HP>docker run -d -p 80:80 docker/getting-started
d86960a9ee9b466dc9117d07dba1ca7bc3f34dbd6516cbbf58685efd518b276d
```

4. Docker ps command which is available inside the container used To the status of the process.

```
C:\Users\HP>docker ps
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS        PORTS          NAMES
d86960a9ee9b   docker/getting-started  "/docker-entrypoint..." 36 seconds ago Up 35 seconds  0.0.0.0:80->80/tcp  focused_goldwasser
```

5. Docker build command builds the docker images. A build's context is a set of files .

```
(env1) D:\docker>docker build -t hello-world .
[+] Building 132.3s (10/10) FINISHED
=> [internal] load build definition from Dockerfile                                0.1s
=> => transferring dockerfile: 153B                                              0.0s
=> [internal] load .dockerignore                                                  0.1s
=> => transferring context: 2B                                                  0.0s
=> [internal] load metadata for docker.io/library/python:3.7                    3.6s
=> [auth] library/python:pull token for registry-1.docker.io                    0.0s
=> [internal] load build context                                                  0.0s
=> => transferring context: 482B                                                0.0s
=> [1/4] FROM docker.io/library/python:3.7@sha256:854121da1afed32db6c9fba55689763ad0e35a39f7a18c39ef54bf0968c96ce 101.7s
=> => resolve docker.io/library/python:3.7@sha256:854121da1afed32db6c9fba55689763ad0e35a39f7a18c39ef54bf0968c96ce 0.0s
=> => sha256:9a3e76cc4679ac18af6913405e6e169bd307ffd547c39eab7f3b02078be6d7f5 2.22kB / 2.22kB 0.0s
=> => sha256:f606d8928ed378229f2460b94b504cca239fb906efc57acbfd9340bd298d5ddf 55.05MB / 55.05MB 51.1s
```

6. Port number 8000 from the container on your docker host on port 5000.

```
(env1) D:\docker>docker run -d -p 5000:8000 hello-world
4d8868f42e0cd50a43d0d2d297b6140938a5eb2feaf5ee508321fb23eaac96a3
```

7. Docker rmi command is used to remove the images.

```
(env1) D:\docker>docker rmi -f hello-world
Untagged: hello-world:latest
```

8. Docker push is used to push a docker image to a docker hub repository.

```
D:\docker>docker push mpj347/hello-world:latest
The push refers to repository [docker.io/mpj347/hello-world]
2d2858fb5cfc: Pushed
5f70bf18a086: Pushed
b2da3b84421d: Pushed
212bcd807e9a: Mounted from library/python
```

9. Docker stop command is used to stop the container.

```
D:\docker>docker stop repo
repo
```

10. Docker restart command is used to restart the container.

```
docker/getting-started latest

D:\docker>docker restart repo
repo
```

11. It will fetch logs from a specified container.

```
D:\docker>docker logs repo
Cloning into 'getting-started'...
fatal: destination path 'getting-started' already exists and is not an empty directory.
```

12. To remove the container .

```
D:\docker>docker rm repo
repo
```

13. List all docker containers details.

```
D:\docker>docker ps -a
```

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS	NAMES
5d9dc8f3f4c3	docker/getting-started	"/docker-entrypoint..."	29 hours ago	Exited (255) 19 hours ago	0.0.0.0:80->80/tcp	compassionate_neumann

```
D:\docker>
```

14. Lists the details of all the network in the cluster.

```
D:\docker>docker network ls
```

NETWORK ID	NAME	DRIVER	SCOPE
f6ff72ef721d	bridge	bridge	local
33be959e0c4c	host	host	local
f5fc7f66afb9	none	null	local

15. Get detailed information about docker installed on the system including the kernel version, number of containers and images.

```
D:\docker>docker info
```

Client:

- Context: default
- Debug Mode: false

Plugins:

- buildx: Docker Buildx (Docker Inc., v0.9.1)
- compose: Docker Compose (Docker Inc., v2.10.2)
- extension: Manages Docker extensions (Docker Inc., v0.2.9)
- sbom: View the packaged-based Software Bill Of Materials (SBOM) for an image (Anchore Inc., 0.6.0)
- scan: Docker Scan (Docker Inc., v0.19.0)

Server:

- Containers: 1
 - Running: 0
 - Paused: 0
 - Stopped: 1
- Images: 3
- Server Version: 20.10.17
- Storage Driver: overlay2

