

# Fundamentals of Docker

## Base Image

It is basic images (OS-Image).

example:

- Linux
- windows
- Mac os

## Image Layer

- Images are comprised of multiple layers.
- Every image has base layers.
- Docker uses a copy on write system.
- Layers are just read only image.

## Dockerfile

- It is basic building blocks of docker container
- It is a file with set of Instructions and forms the basic for any docker images.

## Structure of Dockerfile

- **FROM**
  - Every Dockerfile start with command which defines base images
- **Maintainer**
  - It defines like author.
- **RUN**

- It is used to install the RPM or Packages, Configuration, anything
- Execute commands in new layer and creates new images it is often used for installing software packages.
- **ENV**
  - Used to set environment variables
- **CMD**
  - Sets a default commands or parameters which can be overwritten from CLI when docker containers run.
- **EXPOSE**
  - It is used to expose our docker image in certain port number
- **ENTRYPOINT**
  - configures a container that will run as an executable.