**Docker**

**Entrypoint vs CMD**

**ADD vs COPY**

**Docker lifecycle**

**Docker:**

Open source containerzation platform.It enables developers to package applications into containers.

**Docker containers:**

Components like App source code+OSlibraries+dependencies required to run that code in any env.

Light in weight .as it does not has any OS.

**Docker file:**

Users would create a file with set of instructions or commands that defines a docker image.

Ex: which base  image to choose what dep should be installed for the application to run?

**Image:**

An image is a read-only template with instructions for creating a Docker container.

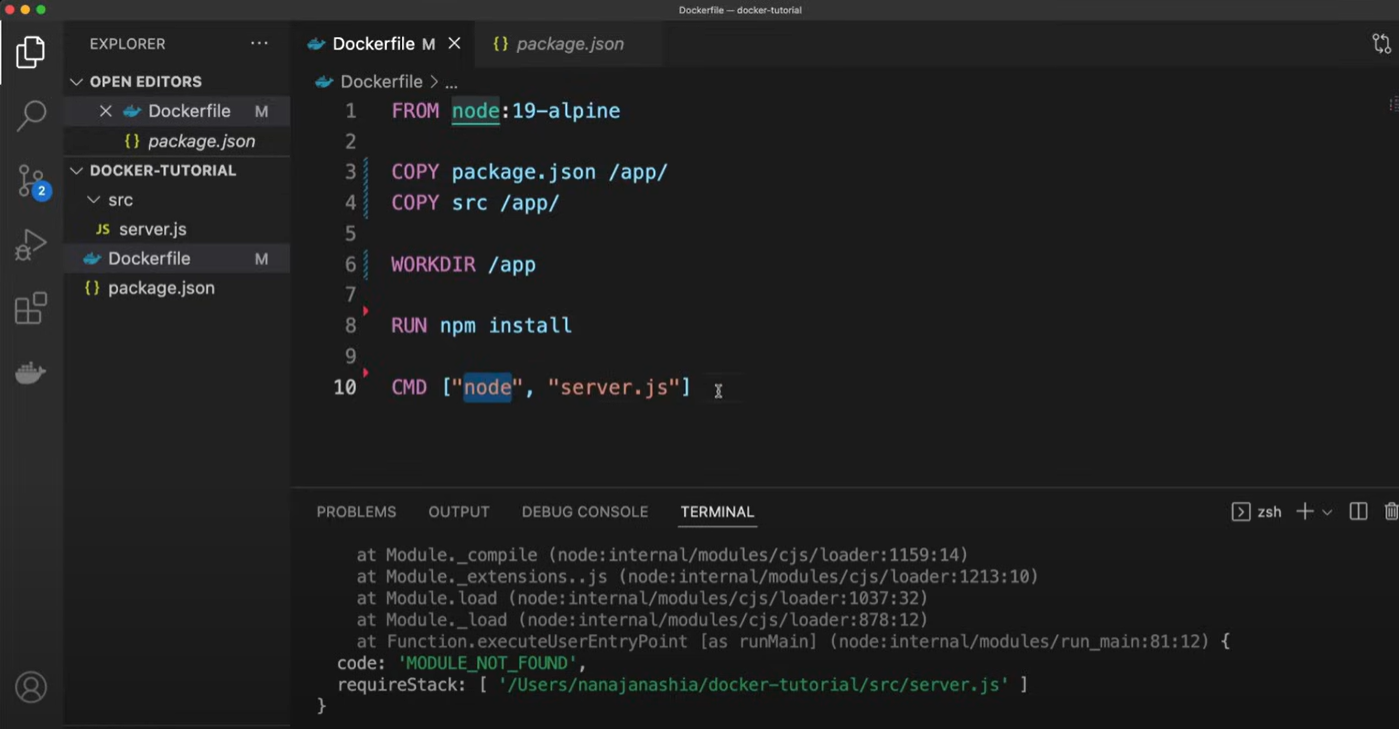
From 1 image we can run multiple containers to increase performance

**Docker components:**

Docker client: CLI commands

Docker host: which has daemon to execute docker commands listens and responds to commands.

Docker Registry: to host docker images

**ADD: can copy the files from URL**

**COPY:  copies files/directories from host into filesystem of the container.copy is executed on the host**

**WORKDIR: Sets the working directory for all following commands.**

**RUN: Executed in the container.**

**CMD: instruction that is to be executed when a docker container starts. There can be only 1 CMD instruction.**

**ENTRYPOINT:**

**Transfer file from one container to another container**

**Docker cp : manual. (copy from 1 doc to host and then host to another container)**

**(Or) Shared volume( Automation)**

**Docker file: Using this we can create a single container.**

**Docker compose: create one or more than one container**

**Docker swarm:**

**Container orchestration platform.**

**c-c communication**

**Multi-stage build:**

**Allows to create containers in multiple stages allowing to copy artiacts from one stage to another.**

**Adv: builds light weight containers**

**Distroless images**

**More light in weight than the docker images as it contains only min os libraries and it doesnot contain packager managers ,shells or other programs.**