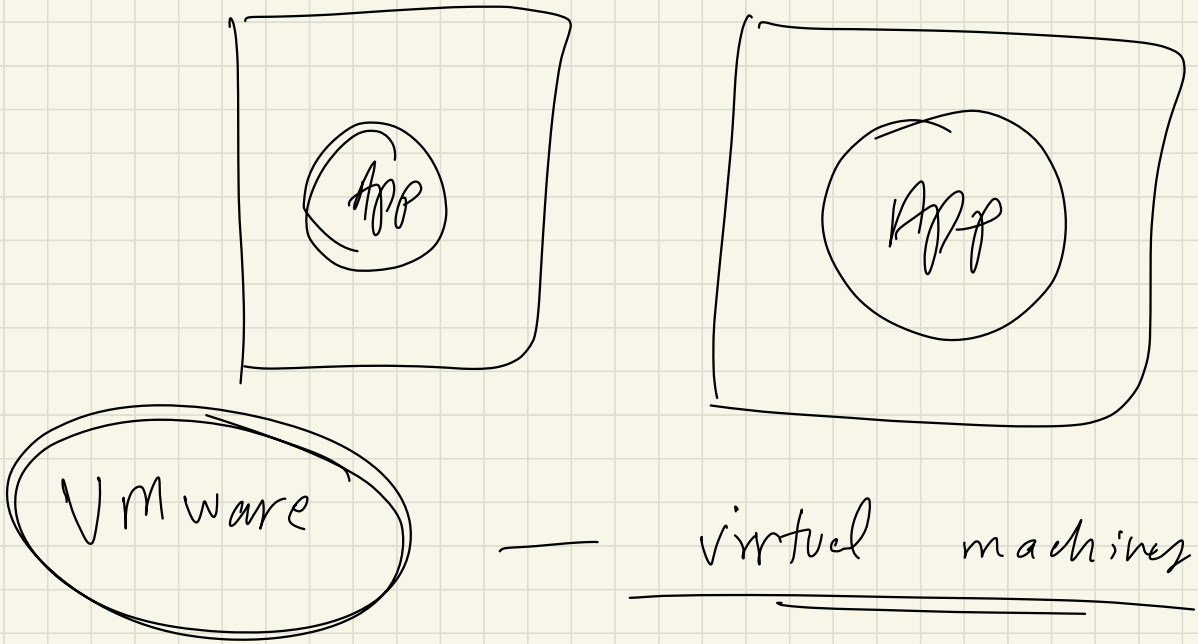
One application on one server.



— virtual machines.

Containers

Windows : Docker Desktop + WSL2

Mac : VMs & Docker Desktop

Linux : As it is

Docker- It is tool which creates container to run our app in our machine in an isolaed environment

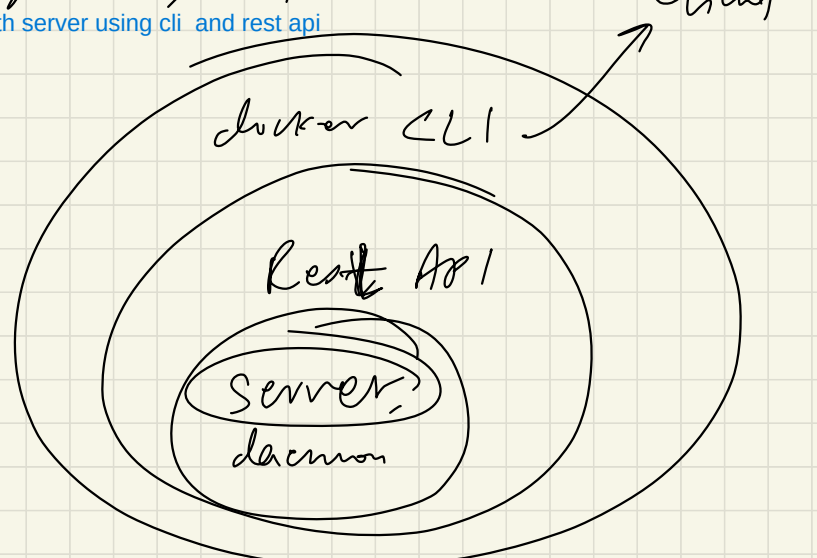
1 Runtime Runtime allows us to start and stop containers.

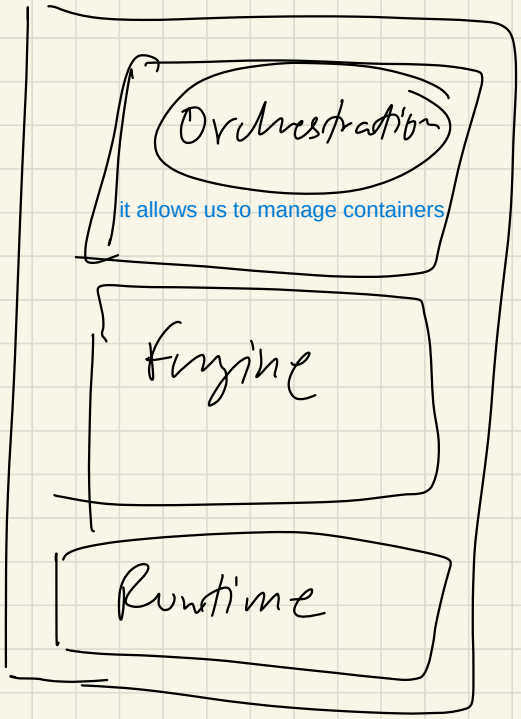
low-level runtime — runc (it works with our OS and starts and stop the cont)

high-level runtime — containerd (it manages run C ,helps in manages container,also pulling the images, conntecting to network and data)

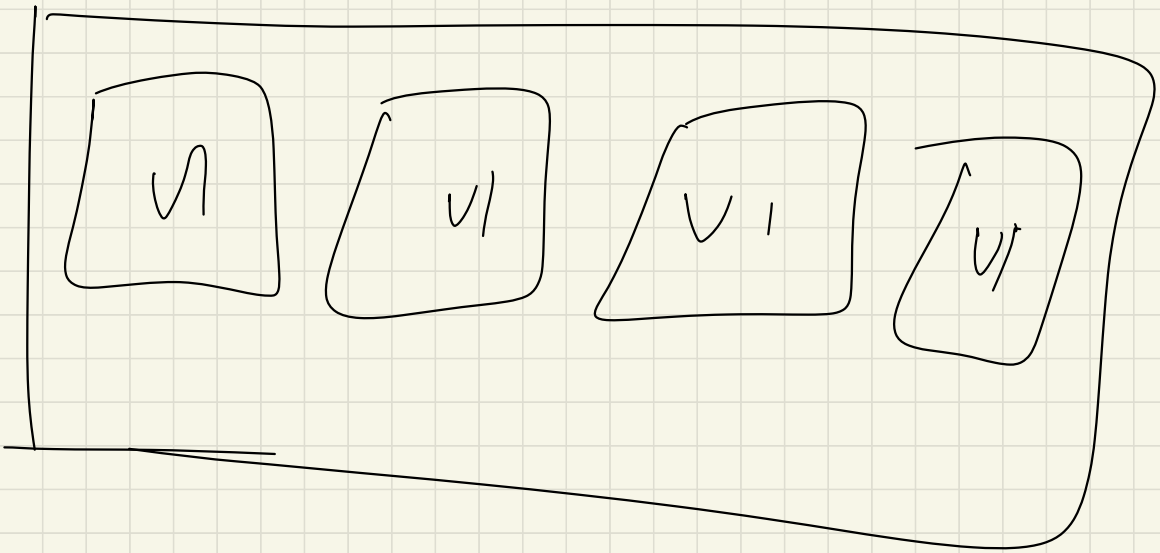
2 Engine , Daemon

it used to interact with server using cli and rest api

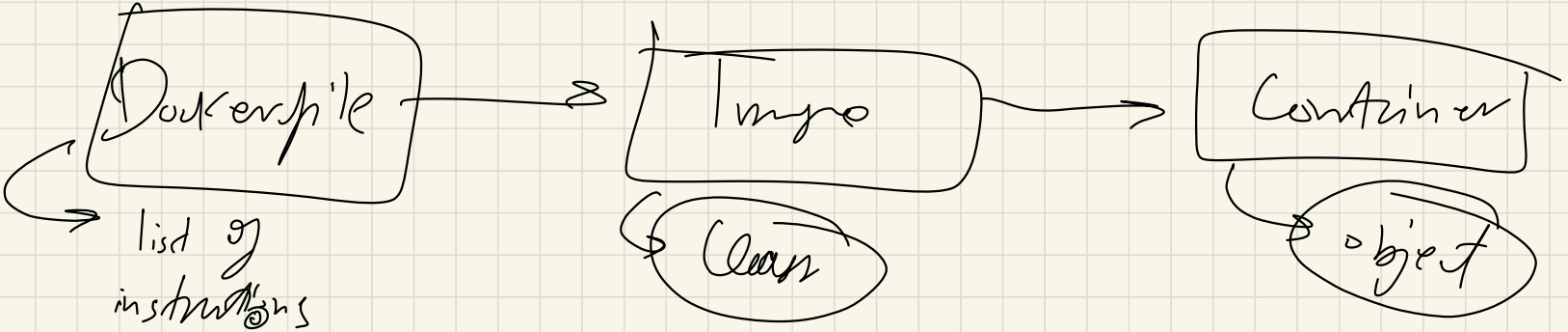


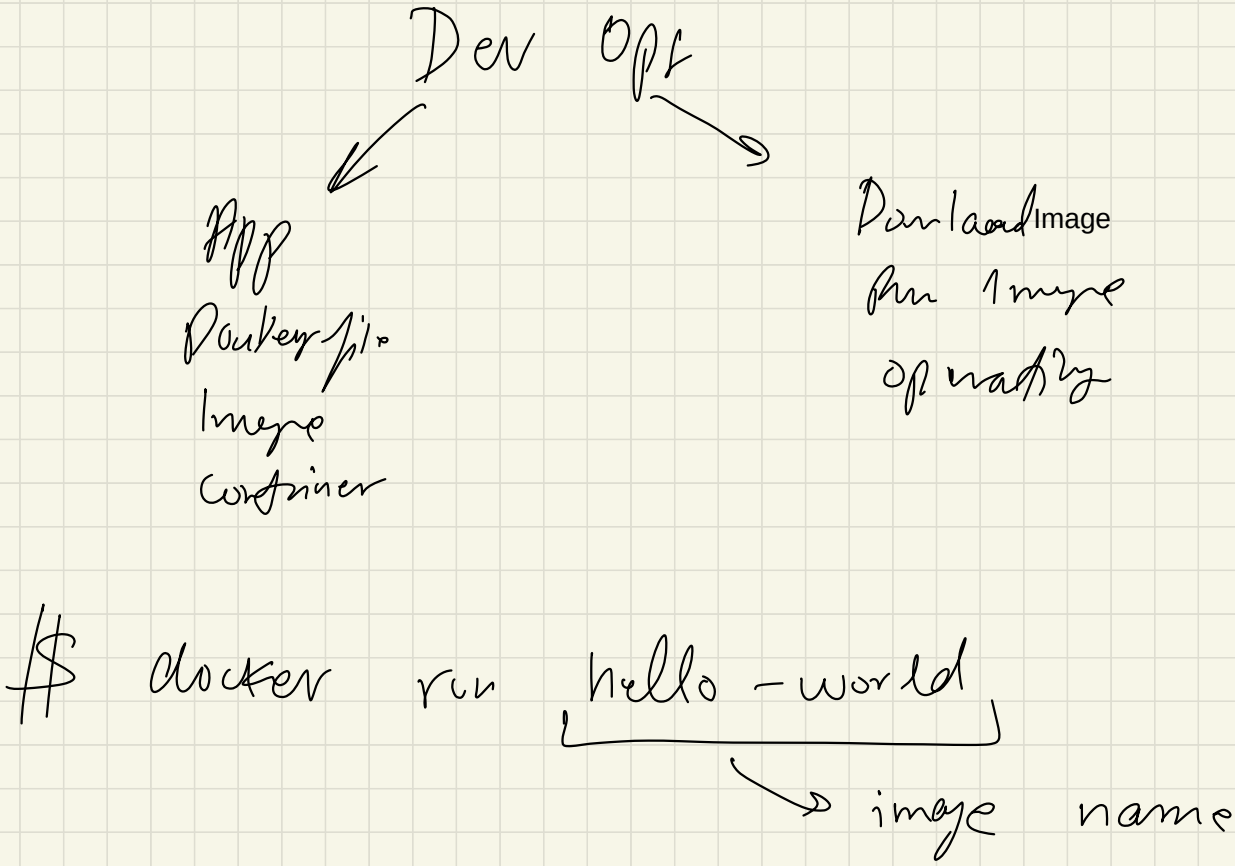


Docker Container



we run docker file(list of instructions to create an image),we can use the image to create our container.



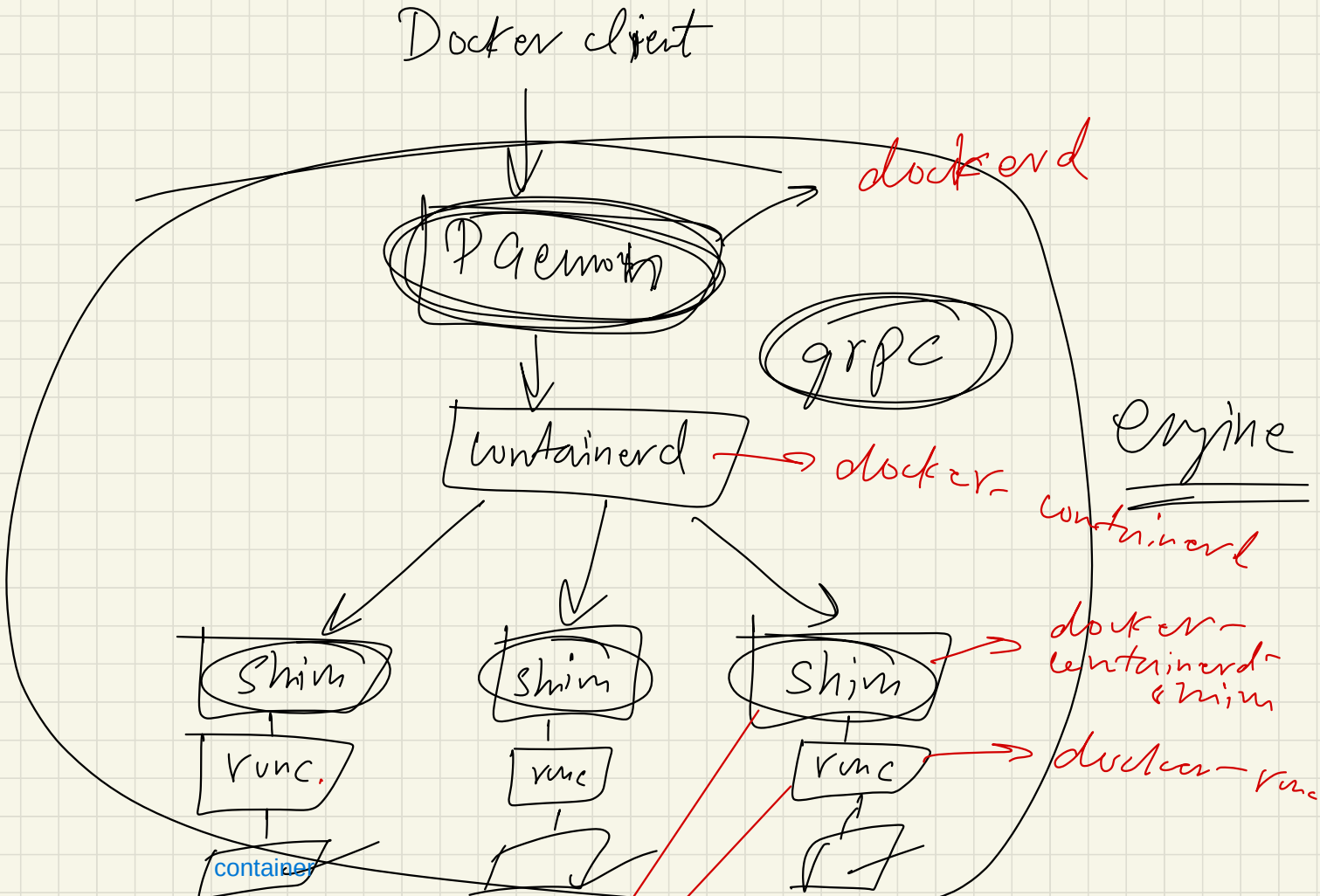


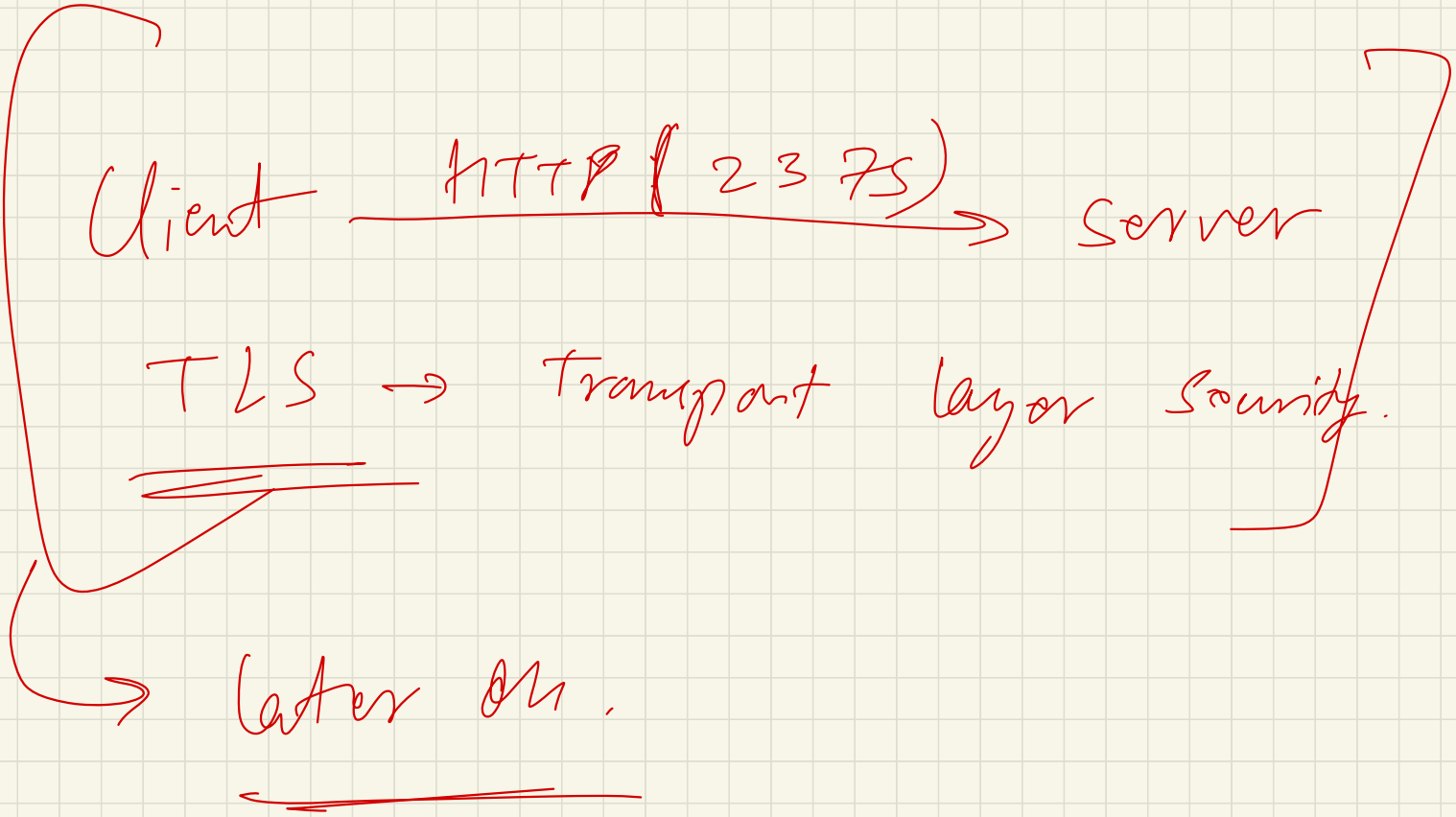
Dev Opt

App
Dockerfile
Image
Container

Download Image
Run Image
operating

$ docker run $\underbrace{\text{hello-world}}$ → image name


Docker client
Daemon
dockerd
grpc
containerd
docker-containerd
engine
shim
shim
shim
docker-containerd-shim
runc
runc
runc
docker-runc
container


Client
HTTP (2375)
Server
TLS → Transport layer Security.
later on.