Docker :

Docker is an open platform for devloping , shipping and running application .

Code works fine in developer environment but as environment changes code alos don't run successfully so to avoid these conflicts we use docker .
Docker is an open platform for devloping , shipping and running application . word is derived from dockyard where loading and unloading of ships happens .

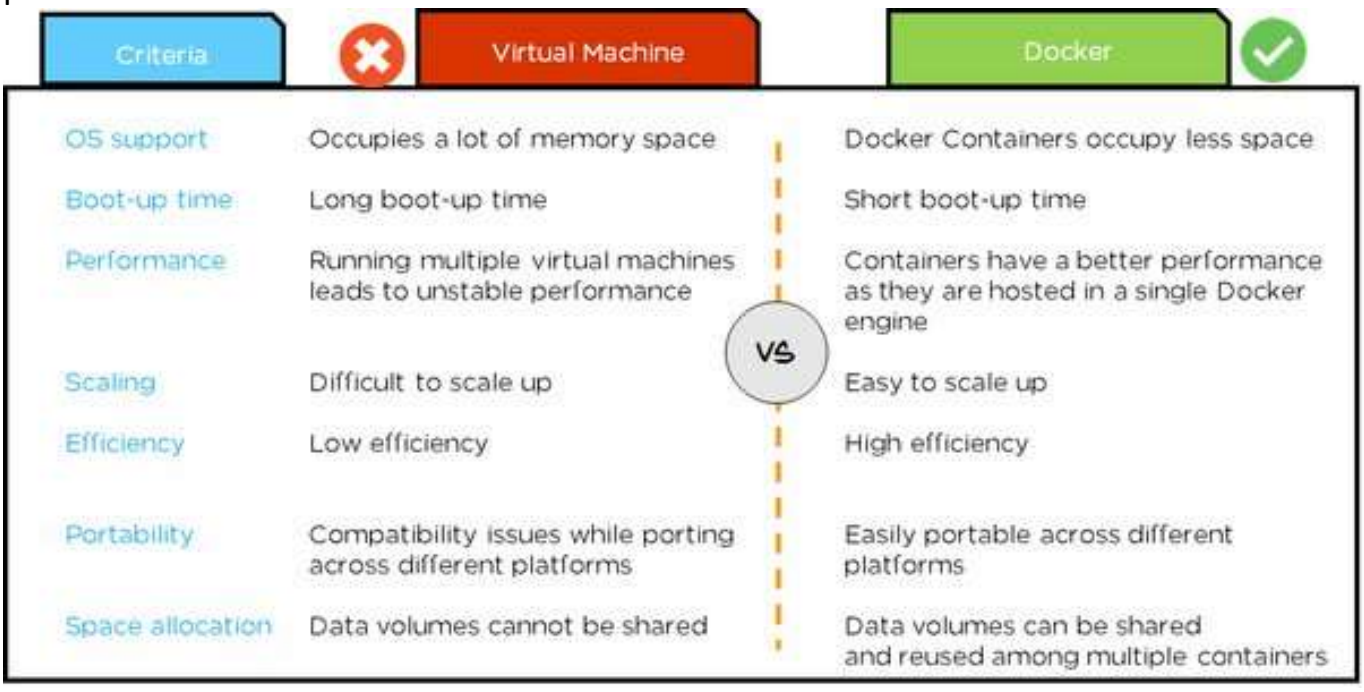
It provides lightweight where we can manage infrastructure in the same way we manage application .

Git hub is place to hold source code similarly we have docker hub where we store our containers and allow us to exchange image . for ex Manu sir created shuhari image and shared with all os us hence we all were in same environment .

Docker engine : docker provided ability to package and run applcation in a loosley isolated environment called container . container are lightweight and contain everything needed to host an application .

Docker enables to separate application from infrastructure so that it can be delivered quickly .
You can run many containers simultenously on same os . *multi docker on one os .*

Develop the application and its supporting components using containers . The containers become unit of distributing and testing your application , when ready deploy application in production env .



Start debian : accessibility to internet is necessary .

#apt get update
#apt install docker.io
#docker--version
#docker run hello-world (this is default image present on docker when we run this command it will pull this container and run this before tht it will also check local images)
#docker images (it will showcase all local images)
#docker ps -a (running docker)
#docker run -it ___ (it -> interactive terminal)
#docker run -it ubuntu bash

Case scenerio : Company wants to shift office to new locatiopn what shall we do :
No need to migrate infrastructure , docker and contanerisation comes into help . we get same environment irrespective of location . (ex travel kit)

Imp : Using Ubuntu
Install apache on docker : Two ways
Tutorial : https://phoenixnap.com/kb/docker-apache
1st way : pull container : it doesn't allow to customize according to requirements .
Docker run -d --name -------- -p ----- httpd
Local machine port : port of conatiner
#docker pull httpd

#docker run -d --name ___ -p host port : container port httpd

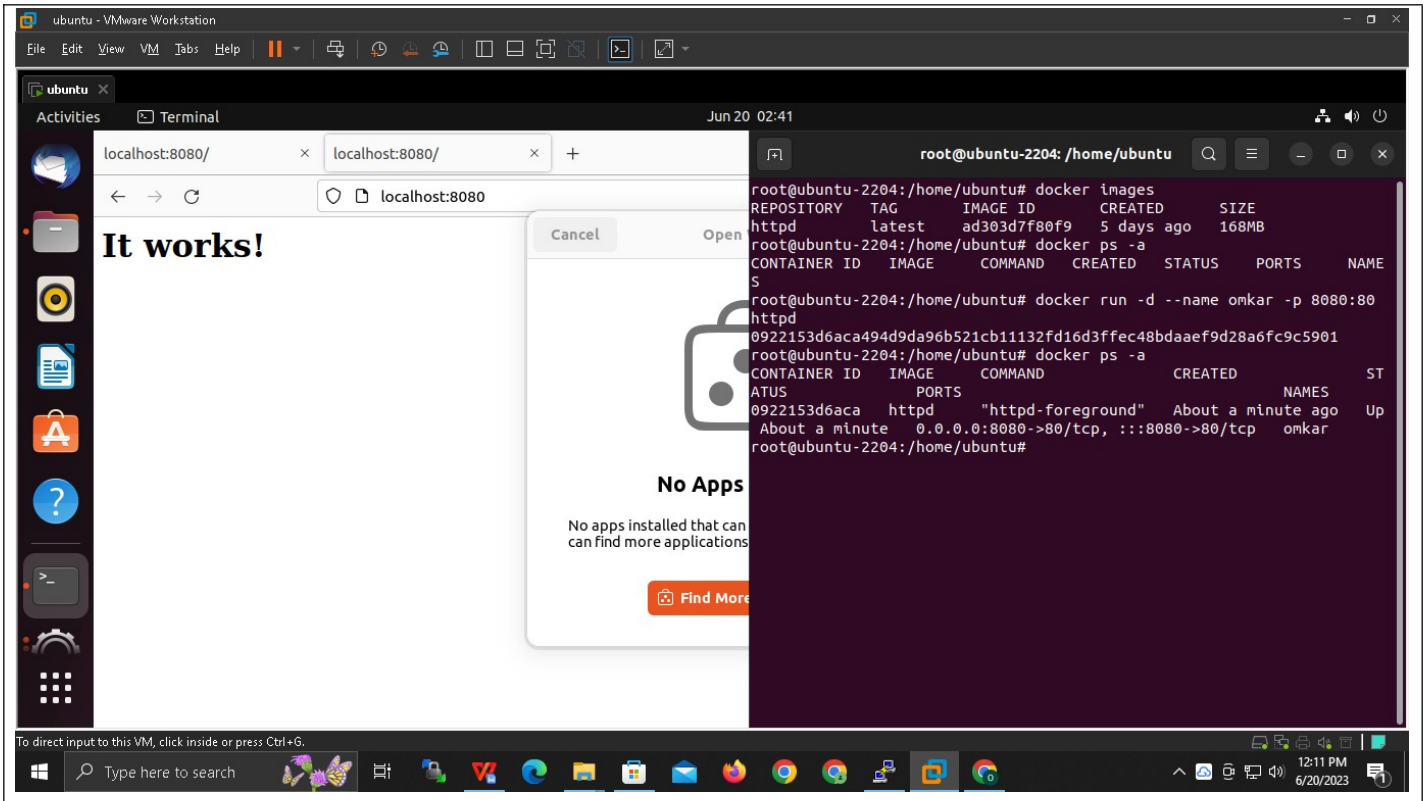
8080 port is alternative to port 80

Its advisable to run conatiner in background because if we don't then container will run and we will not be able to access cli hence it is advised to run at background . on linux it is & operator . it tells to run process in background untethering the shell

1st method :
This wont allow cutomization according

On ubuntu :

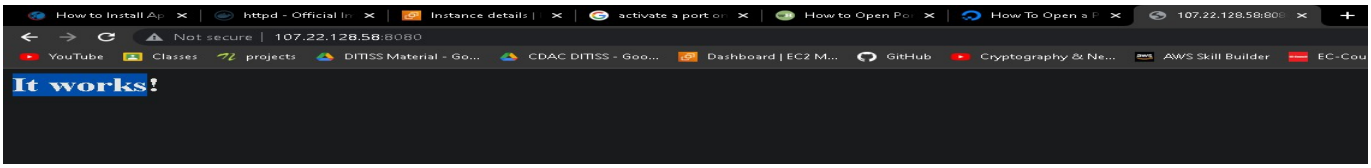
$ sudo apt install docker.io
$sudo docker login
$sudo docker pull httpd
$sudo docker run -d -p os port : container port httpd



Docker on EC2:

$sudo apt-get install docker.io
$sudo docker pull httpd
$sudo docker run -d --name iacsd -p 8080:80 httpd

Go to security setting allow all ports :



Docker on debian :

$sudo apt-get install docker.io
$sudo docker pull httpd
$sudo docker run -d --name iacsd -p 4545:80 httpd

Edit rule in iptables
Iptables -A INPUT -p tcp --dport 4545 -j ACCEPT