

## Today's Agenda :-

### Containerization

#### 1. Docker

- What it is
- How it came
- how to use
- how to install it
- how to create containers
- basic commands
- Create customize images
- Push into docker hub

Phase → [1990's] ←

1. Server → Physical → [30-45 days]

2. Code → 45 days

3. install OS → 1 day

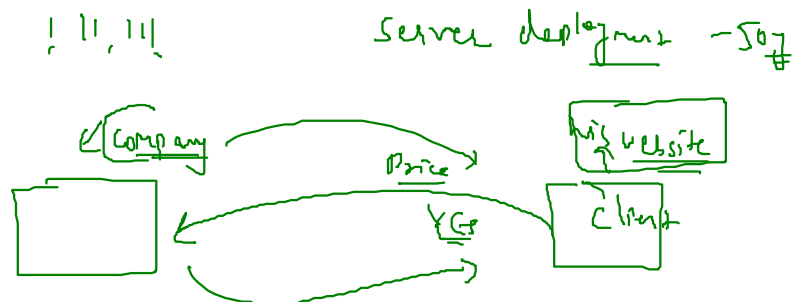
4. Configure web server → Tomcat Apache → 1 day

5. Copy Code

6. start service of Apache

7. DNS → Physical

at [3-4 days]



3-4

Total = 47 days

(2-3)

URL → hit website → (X)

URL

↑ load

↓ slow / down

→ Access

[Crash] [warning]

47 days

Phase → 2000's → Virtualization → VM's

→ VMWARE / VirtualBox / HyperV

① Physical Server → 7 days

② Code = 7 days

③ install OS → 6 hrs

④ VMWARE sof → 6 hrs

⑤ Virtual M/c → 6 hrs

⑥ Apache ser → 6 hrs

⑦ DNS

= 6 days

URL

↑↑ load

Crashed

12 hrs

[12 hrs]

Get website B → (X)

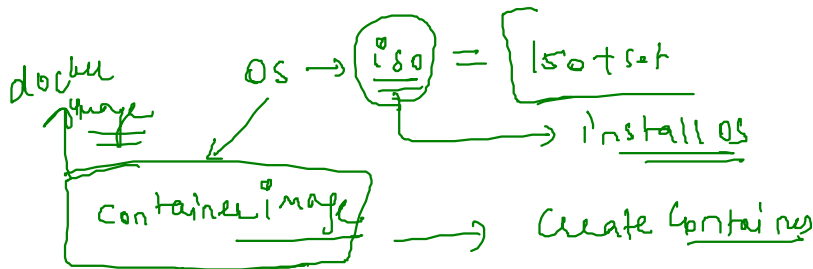
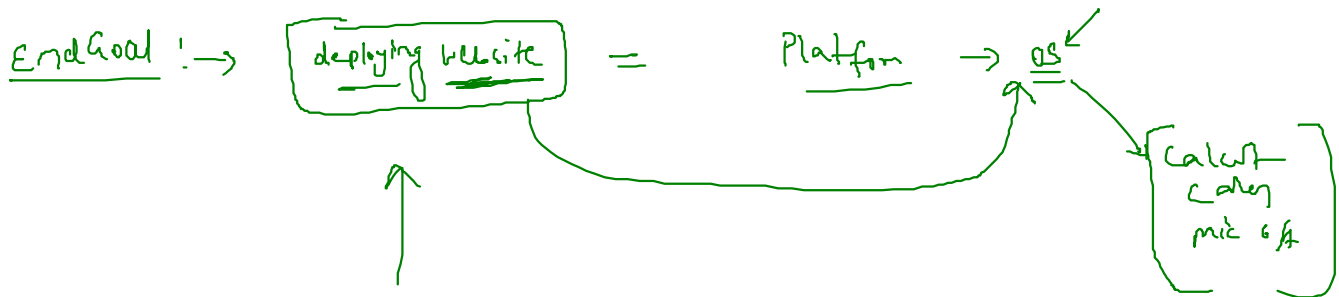
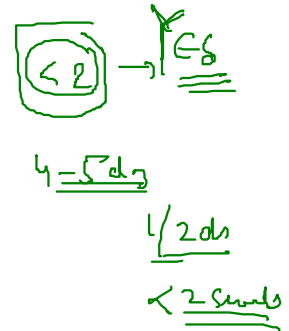
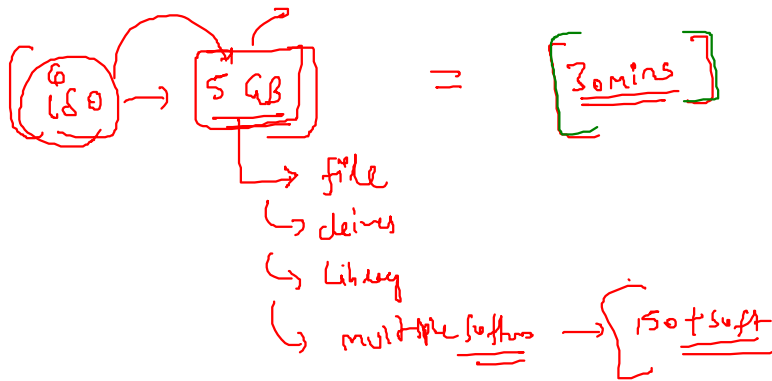
4-5

1/2 day

III Phase → 2013 → [Containerization] → Docker, Podman, Buildah, etc  
Container

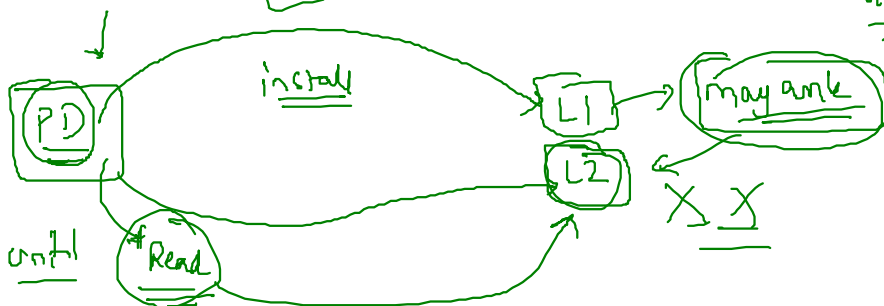
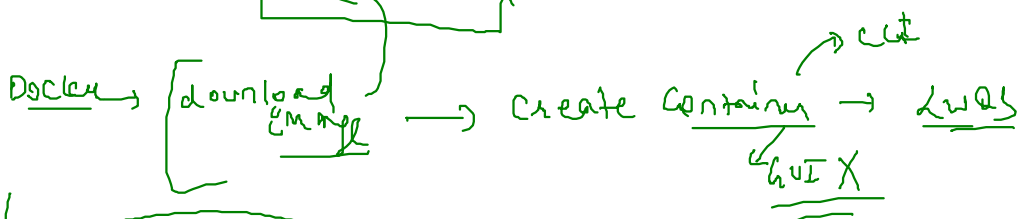
Windows → install → file extension → .exe → Windows

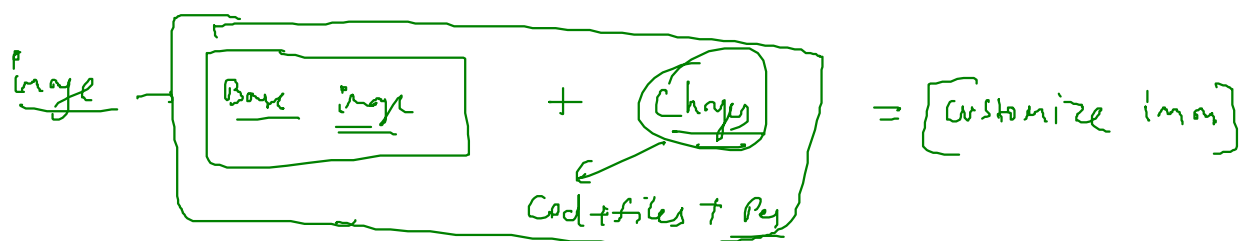
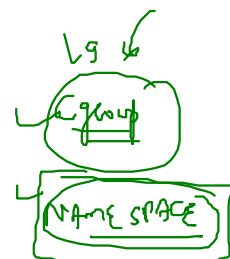
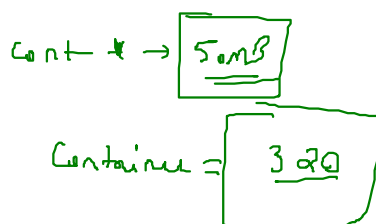
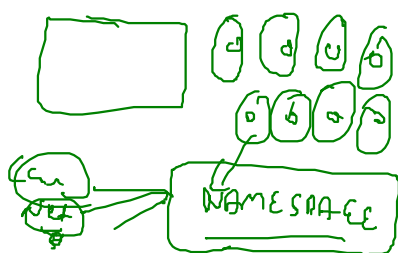
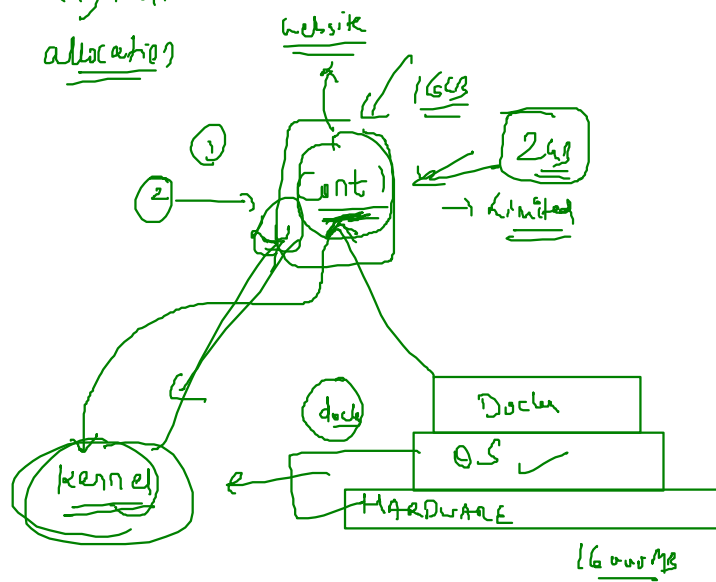
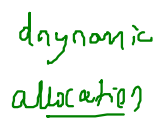
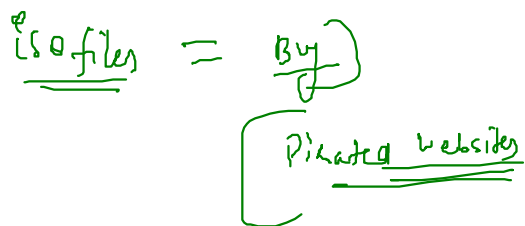
OS  
Windows → file = image file = .iso



X  
Docker → Containers

install OS





Cl<sub>2</sub>

✓ 1 Dockerfile = customized image

✓ upload that  $\times$  docker hub

Ubuntu  $\rightarrow$  \_\_\_\_\_

Container  $\rightarrow$  Sensitive OS

Process X  $\rightarrow$  stop up X

Parent Process  $\rightarrow$  Stop

Bash  
date  
cal

Bash  $\rightarrow$  stop  $\rightarrow$  exited  
 $\rightarrow$  run  $\rightarrow$  stop

sleep 1000

Windows  $\rightarrow$  Set Process

up

Wing

All Pa

1 Process  
1 Parent Process

bash  $\rightarrow$  1

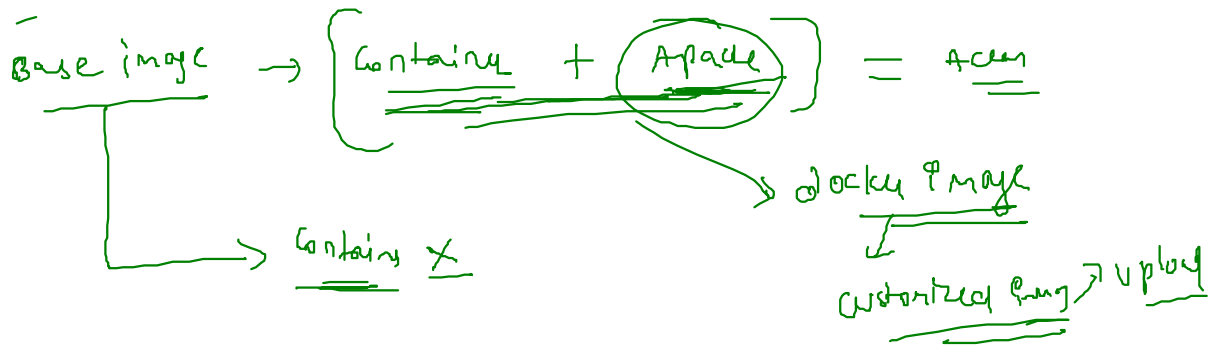
exited

hello world  $\rightarrow$

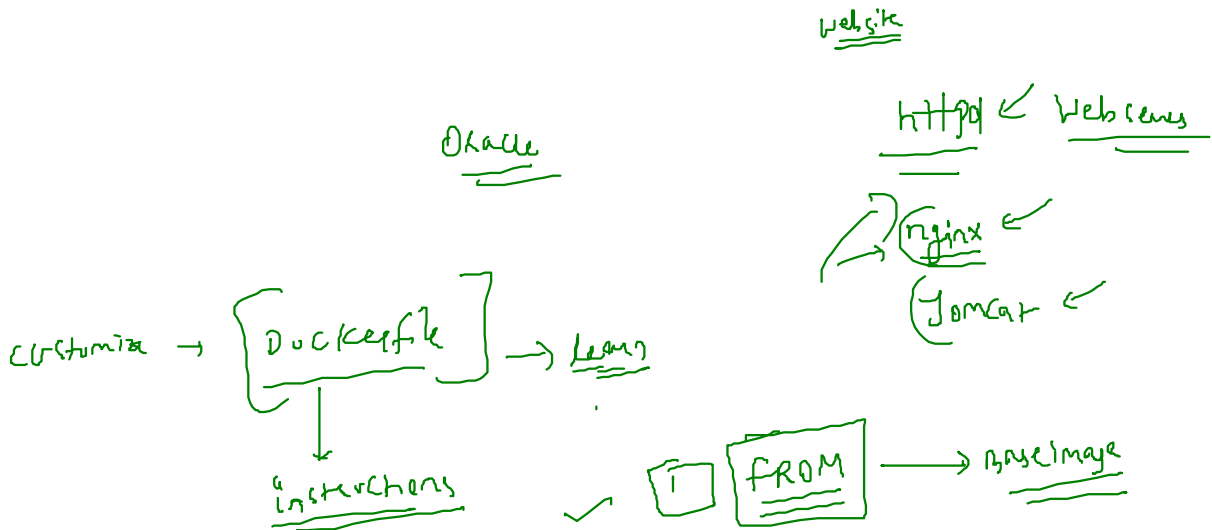
Script  
Print msg  
stop

stop

YAML  
Containers!  
spe  $\leftarrow$  [ name  
image  
- name  
image ]



Dockerfile file



✓ 2 MAINTAINER Author

✓ 3 RUN

✓ 4 COPY ○ ○

✓ 5 Port + ports

Endpoint →

Start Service

ENTRYPOINT

CMD

