VIVA → when image is run, container is created.
→ IP add changes for every container. Page No.
Date.
YOUVA

16/02/2022

No practical.

[Use 'sudo docker --debug'] for daemon not
running error.

23/02/2022 — Docker

sudo apt-get update.

sudo apt-get install docker.io. (Docker Installation).

sudo docker --version

sudo docker pull ubuntu

sudo docker images (Repository Tag ImageId created Size).
→ Ubuntu (Repository).

sudo docker run -it -d (To run image).
↑ (To make interactive).

ps -a ← sudo docker ps (To check which containers are running).

(To check
no. of
containers
that exist). sudo docker (exec) -it 'CONTAINER ID' bash (To go inside the container)
alive stage of container

apt-get update (To update container).

apt-get install apache2.

service apache2 start.

cd /var (goes inside /var)

ll 6d2afda
285 ls

cd www

cd html ——→ apt install git → git clone repository link → service
apache2 start

exit (To exit the container).

→ Create acct on docker hub.

sudo docker login.

→ sudo docker commit CONTAINER ID 'username/filename' eg:- nups1/demo.

To send → sudo docker images (To check the created images).
container
to someone sudo docker push 'imagename' → sudo docker rm 'container id' (To
v need to delete).
create image sudo docker stop 'container id' (To stop & exit container).

Linux on Windows   virtual Machine Platform.
                                                      (Cut side)
⇒ Control Panel → Programs → Programs & features → turn features on/off
⇒ enable 8 features → Hyper V, windows system fo linux (Restart).
                                 sub-
⇒ cmd → wsl --update then restart.
⇒ Microsoft store → search wsl → Ubuntu

DOCKER HUB

09/03/2022

* Creating Container & Starting a service, Cloning Repo inside container

```
sudo docker pull ubuntu
sudo docker run -it -d ubuntu
sudo docker ps
sudo docker run -it -d --name container1 ubuntu
sudo docker ps
sudo docker exec -it 'container ID' bash
```
↳ container 1

```
apt-get install apache2 ⎱
                        ⎰— apt-get update
cd var
cd www
cd html
apt install git
git clone 'repository link'
service apache2 start (will give an IP add, paste it in a browser)
exit
```

(make another container).

⇒ Same as above.

container 2

```
sudo docker exec -it 'container ID' bash
```
↳ container 2

```
apt-get update
apt-get install apache2
service apache2 start
exit
```

```
sudo docker ps (containers running)
sudo docker ps -a (for All containers that were created)
sudo docker stop "CONTAINER ID"       ← death stage
sudo docker ps -a ( To check the status of stopped container)
sudo docker rm 'CONTAINER ID' (Delete the container which is stopped)
        ↑ delete stage
sudo docker ps -a
```

* **Using Container Received From Someone else**   Current created
                                                    ← container

sudo docker commit 'CONTAINER ID' 'ImageName' (ubuntu).

sudo docker images (To check the created images/repositories).

~~sudo docker imag~~

PORT FORWARDING   ImageName
                                                  ↓
sudo docker run -it -d -p 82:80 ubuntu

whatever running on port 82 in container (shifting the services from 82 to 80 & 82
is available on port 80 of localhost.   can be used for comm. purpose).

sudo docker ps

sudo docker exec -it 'CONTAINER ID' bash (Go inside container)

service apache2 start

exit   (Same ID).

sudo docker login

sudo docker commit 'CONTAINER ID' 'username/commit msg'
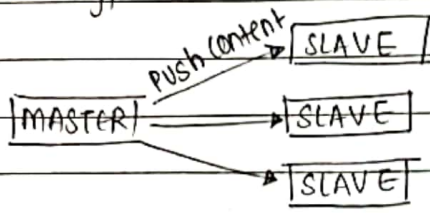
sudo docker images

sudo docker push 'imagename'.
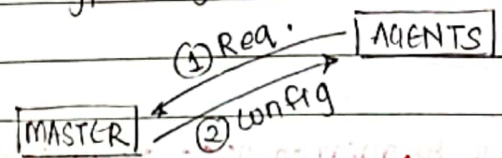
06/04/2022

PUPPET
(PART-I)

SCM → Push — Ansible
(Software Configuration   Pull — Puppet ✓
mgmt)

Push Type (master initiates comm)	Pull Type (Agent initiates comm)

Push Type (master initiates comm)

MASTER → Push content → SLAVE
MASTER → SLAVE
→ SLAVE

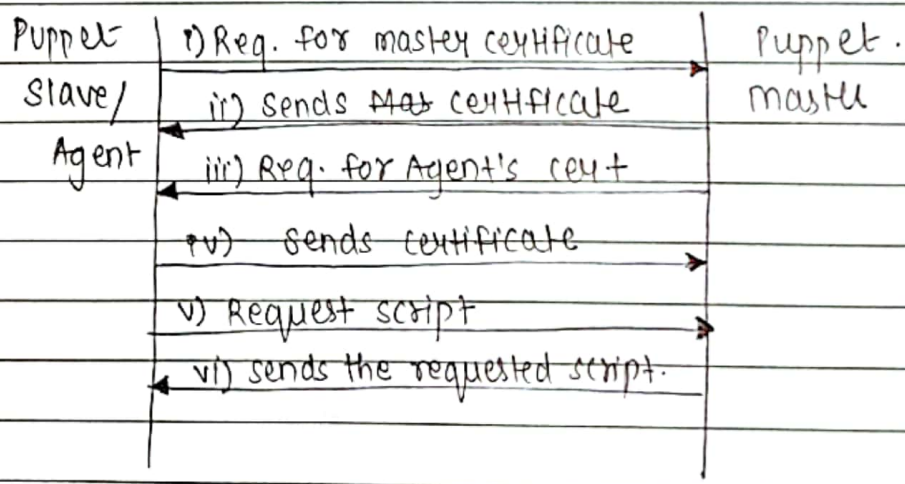Pull Type (Agent initiates comm)

① Req. → AGENTS
MASTER ← ② config

Puppet Part I
⇒ Config master
⇒ Config 2 Agents/slave

Puppet part II
⇒ Handshake
⇒ Create a script on master
⇒ Agent req. for script and if
   approved will be executed by Agent.

वृ9va • **Handshake/Signing Process**

Puppet Slave/ Agent		Puppet. master
	i) Req. for master certificate →	
	ii) Sends Mas certificate ←	
	iii) Req. for Agent's cert →	
	iv) Sends certificate →	
	v) Request script →	
	vi) sends the requested script. ←	

link → | http://apt.puppetlabs.com/puppet-release-bionic.deb |

puppet cert clean wycv.

2 command prompts. (1 master, 1 slave).

for master:-		For slave:-
		slave1
sudo docker run -lt -d --name master. ubuntu.		
(Enter password).		
sudo su		Same
docker ps		
docker exec -lt 'container Id': bash.		
apt update (-get)		
apt install wget (-get)		
wget 'link' (puppet).		
(Press Tab) dpkg -P puppet-release-bionic.deb.		
apt -get install puppetmaster	apt -get install puppet.	
apt install systemctl (To active master)		
cd... cd /etc systemctl start puppet-master.service	cd /etc	
(To start the service)	apt install nano	
cd /etc	nano hosts	
cat hosts (To get ip add of host).	172.17.02 puppet (ctrl+x)	

* Signing Process   (PART-II)

master   slave

Nahi ho Raha Yaar!!

systemctl restart puppet-master.service	puppet agent -t --debug.
puppet cert list (list of cert received)	
puppet sign all (cert)	

✱ IP config.

13/04/2022

Jenkins

PART I

Port 80

⍺ sudo
→ docker pull jenkins/jenkins
→ docker images
→ docker run -it -d -p 82:8080 jenkins/jenkins .
              ⟨ port forwarding

→ Go to browser, type IP add:82
                  ↳ 172.16.111.85 (Jo IP add mila vo dalo).
      ↳ (Gives unlock Jenkins Screen) .

→ Go inside the container
   ⍺ sudo docker ps
   sudo docker exec -it 'CONTAINER ID' bash.
→ cat 'PASTE THE PATH FROM THE BROWSER' (shown on unlock screen).
      ↳ ~~run gen a passw~~ ↳ (Hexa decimal string is
                             generated)

→ copy the string & paste in password field & hit continue.
→ Click on Install suggested plugins. ⟹ (imp pipeline & git).
→ After plugins installed → Create First Admin User screen will appear.
   'REMEMBER USERNAME'
→ Click start using Jenkins

PART II   (Create 5 java files with
                                atleast 1 output) .
• Create a job & schedule them.
→ click on new item. (Freestyle Project)
→ Select GitHub project & put the github project url.
→ Select trigger builds remotely, Poll SCM, Build periodically.
                        ↳ (kabhi kabhi hona chahiye)