13 April 2024 06:54

13.04.24.

cluster → Connect to the cluster

~~we are connecting to master, from kubectl~~

> kubectl

master

"GCP", A, Az

Pod, RS, Deployment. → {imperative, Declarative} → (yaml)

Rc

DBS

x → y

New Application

Cart_ms

↳ Dockerfile ✓

↳ image ✓ → Registry →

(cart-namesp)

✓ [Deployment]

✓ Replicaset

(svc.yaml)

(default)

O : cp(exp)

np: cp

-p - P

Very Most xxxxx

x Pod1 Pod2

10.1.1.2 10.1.1.3

(SERVICE) → [Kub serv trys to resolve connectivity issue]

ip address Pod → least bother

(x Pod) → ip static

↓

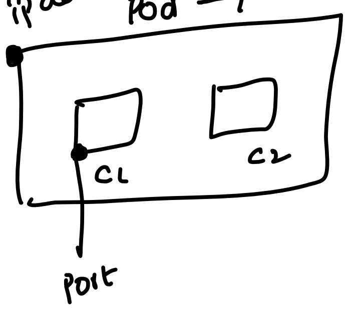
x (cont)

↓

x Process

ns

P, RS, RC, DE



object in K8S — (service) → "entry"

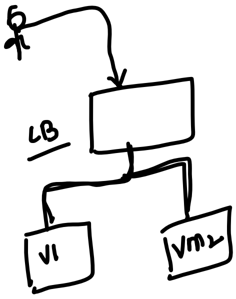
nginx-svc → P1, P2

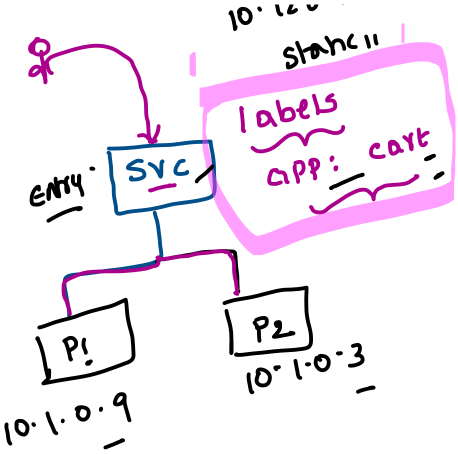
10.128.10.4

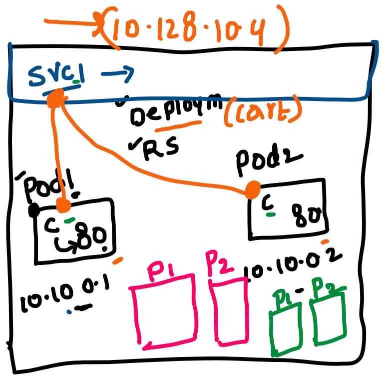
static

(10.128.10.4)

(1-1)

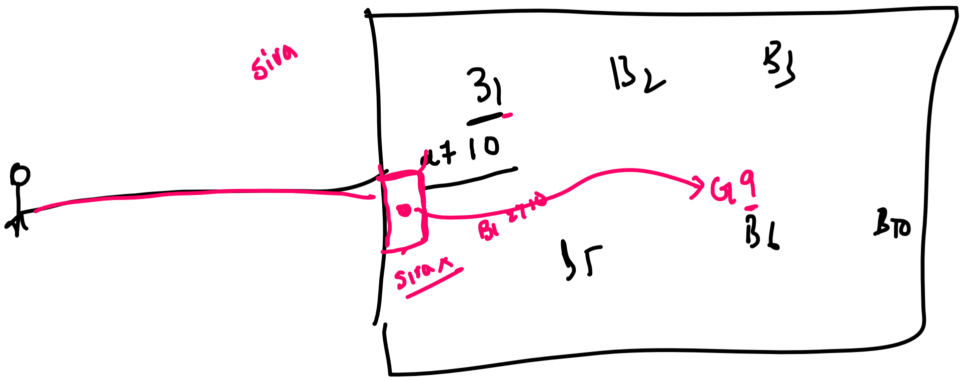


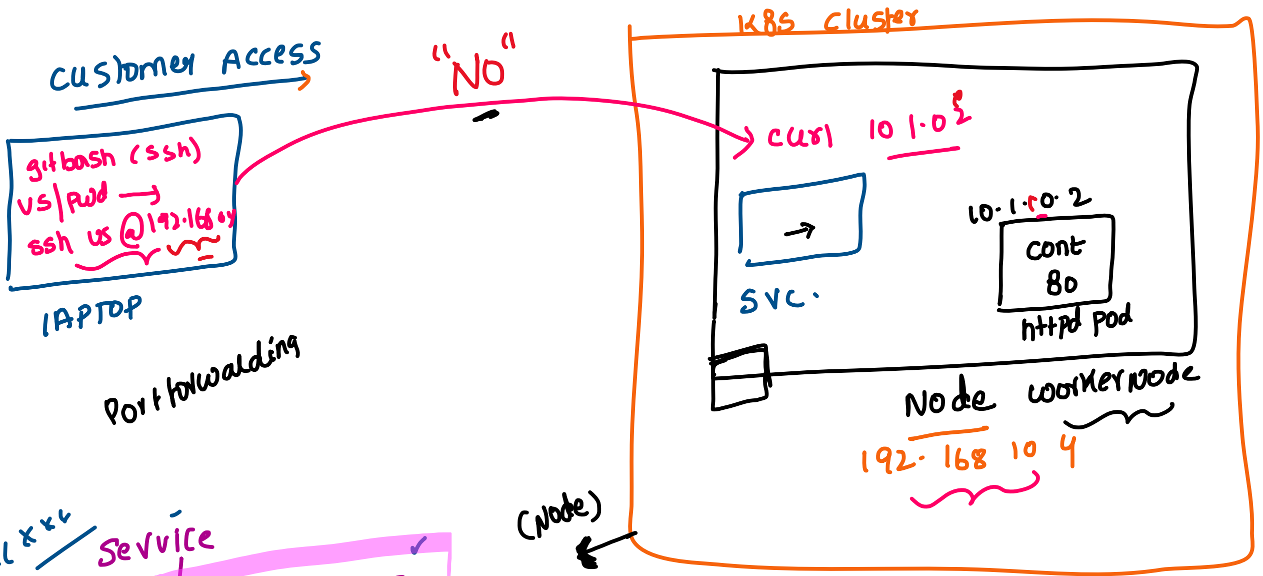




(1-1)

" svc is an Entry "
Pod is a process





Portforwarding

(Node)

fail xxx

(8/10)

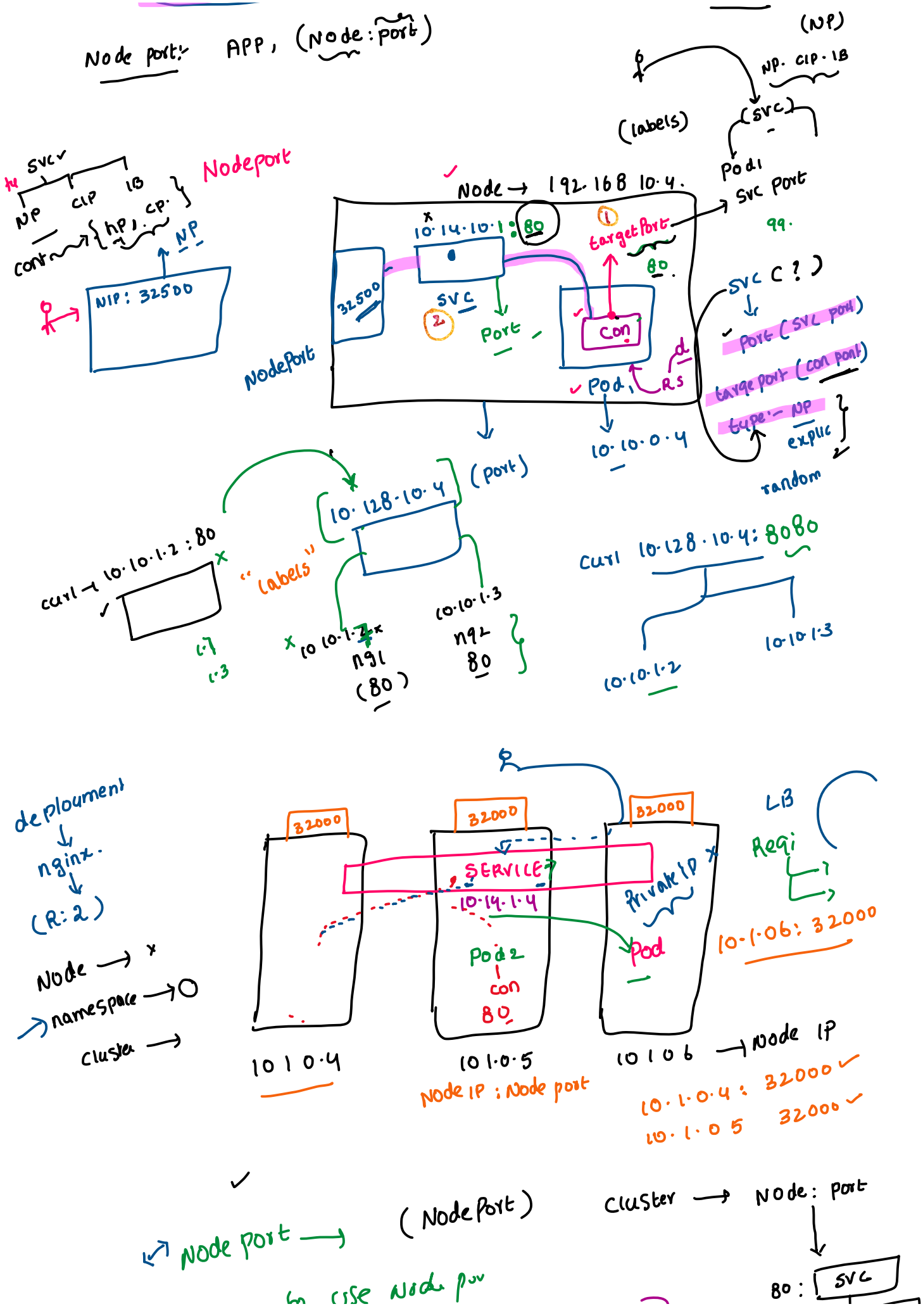
Service
- ClusterIP ✓
- ✓ NodePort ✓
- LoadBalancer ✓
- → headless svc (sts)

CP, NP

(NP)

Node port:- APP, (Node:port)

Node port:- APP, (Node:port)



Node port → (NodePort)

Cluster → Node: Port

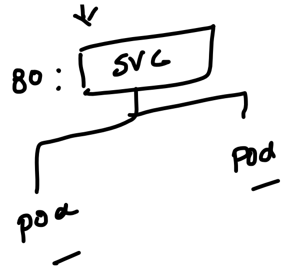
80 : SVC

In case Node pw

Node po… (top line cut off)

good is to use Node port

[NEVER USE Node port] ×

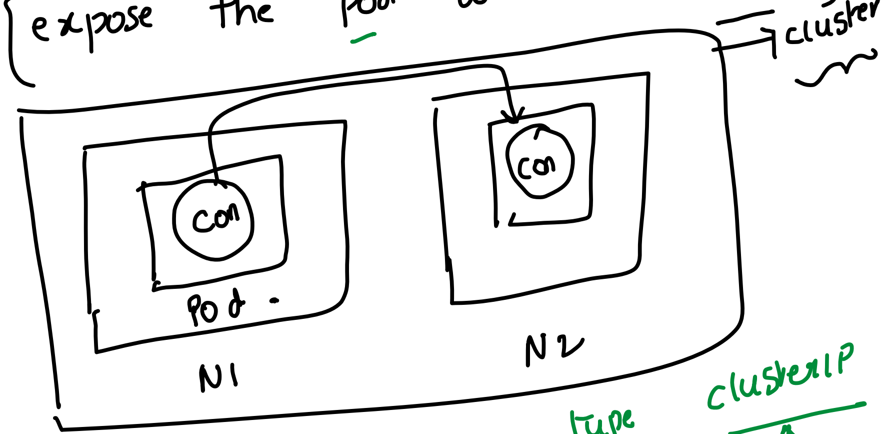


SVC — NP / cip / LB

cip — 99 - -

↳ Real

[expose the pod within the cluster]

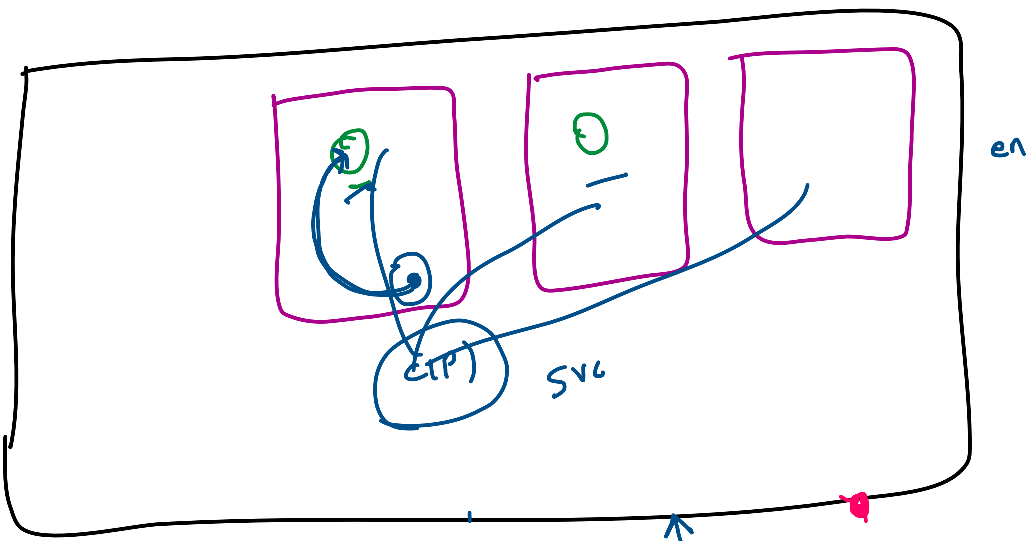


type clusterIP

SVC → CIP

×

[Doesn't have external → connectivity]



devops Engineer ×

Genm

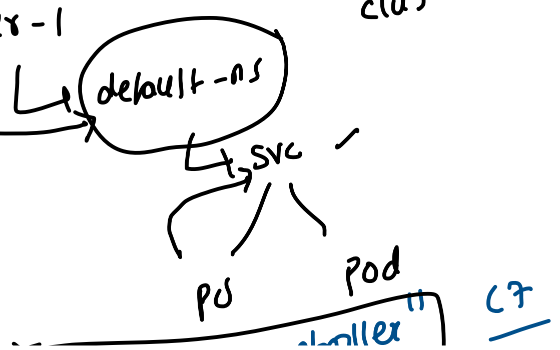
dev —

tst —

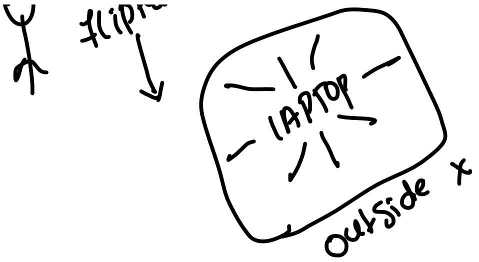
flipkart.

cluster-1

cluster IP



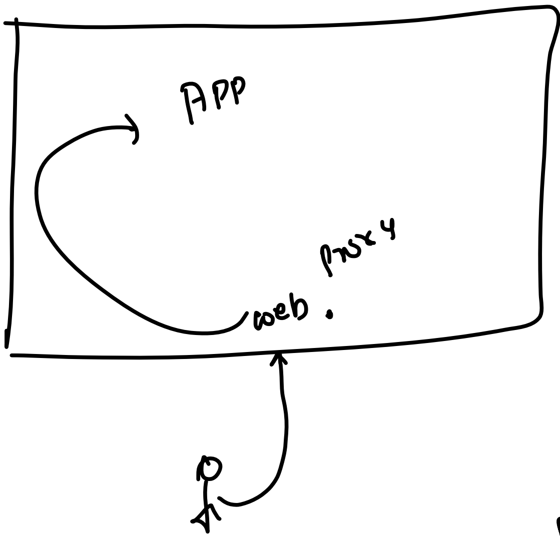
flip...



po pod

" Ingress Controller "

C7



(1) exposed ip)
+
Dep1 svc → Node

Node Port
cluster IP
(Load Balancer) → x

GKE✓
EK✓
AKS✓

AP ~ cloud resour... x
<Pending>

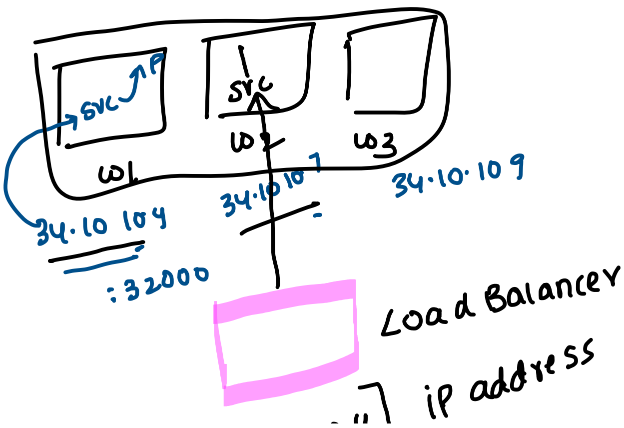
load balancers x

svc → type → load Balancer

Exposes the Service externally using an external load balancer. Kubernetes does not directly offer a load balancing component; you must provide one, or you can integrate your Kubernetes cluster with a cloud provider.

From <https://kubernetes.io/docs/concepts/services-networking/service/>

1 Nodeport - x
2. ClusterIP → x
3 loadbalancer



Load Balanc...

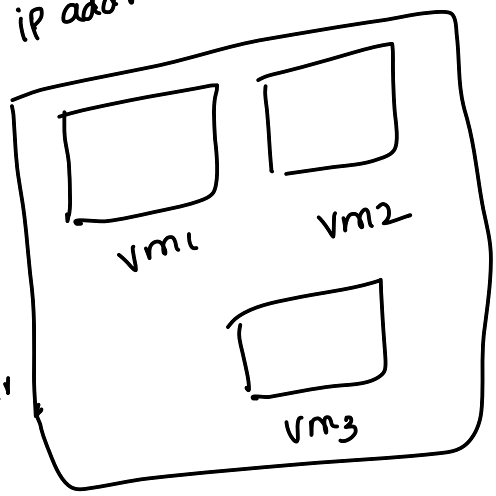
Load x

3 loadbala...

<Pending>

[36.10.10.4] ip address

Cluster



api server

cloud controller managed

cm

schedu

etcd

G
E
A

svc – type LoadBalancer

<Pending]

99.999 → Cluster IP → svc → Cluster IP

nodeport → svc → clusterIP + nodeport

load balance → svc → ClusterIP + Nodeport + LB

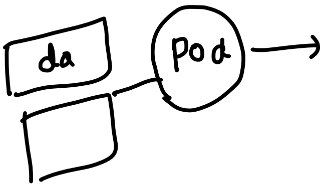
100% → ingress Con...

nginx →

docker – Ephem.

container → ephem

Pe | eP



→ ip ×   svc

(100 → 1000%)

"data" →

Container file system   ephemeral

file.t ×

Volumes

docker | ... | ...dMount

Container

Volumes

docker volume | tempfs | bind mount

--mount -v

//stateless

Pod

cont-1

microservice

cont

big issue

stateful set

logs

image → layers

/app.p → Persist

Volumes :-

-v

Pod

container

run

external storage

Volumes

Pod

container

Persistent volume

Persistent volume claim

external

(PV)

(PVC)

currently i don't know

Type of Volume (?) currently i don't know but eventually i should use it

K8S

- hostPath ← bind mount (doc) — pod
- emptyDir ← tmpfs
- volumes ← volume

2 types of Provisioning.

- → Static Provisioning
- → Dynamic Provisioning → (**)

(○ — use)

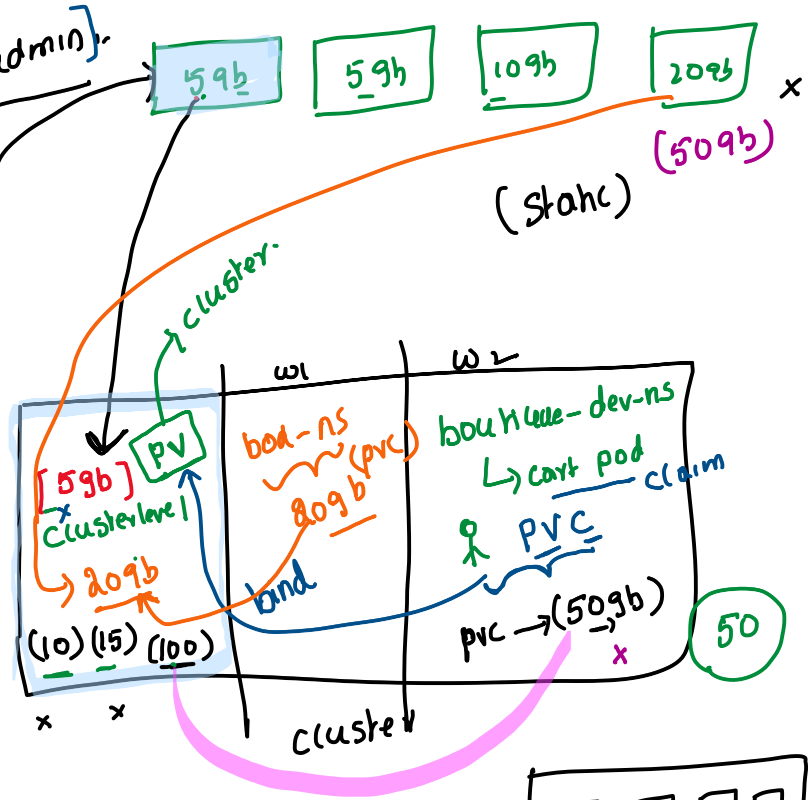
Siva → devops boutique. → Phani → storage admin (not related to K8S)

hari → develope "

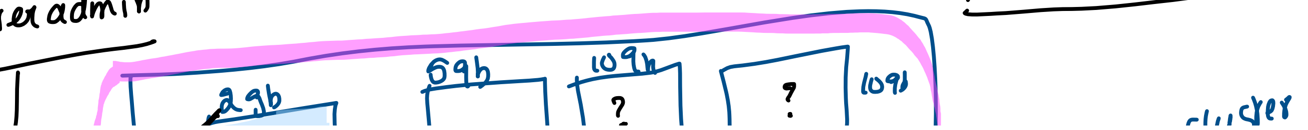
boutique → cluster [Storage admin] → storage admin provisioned

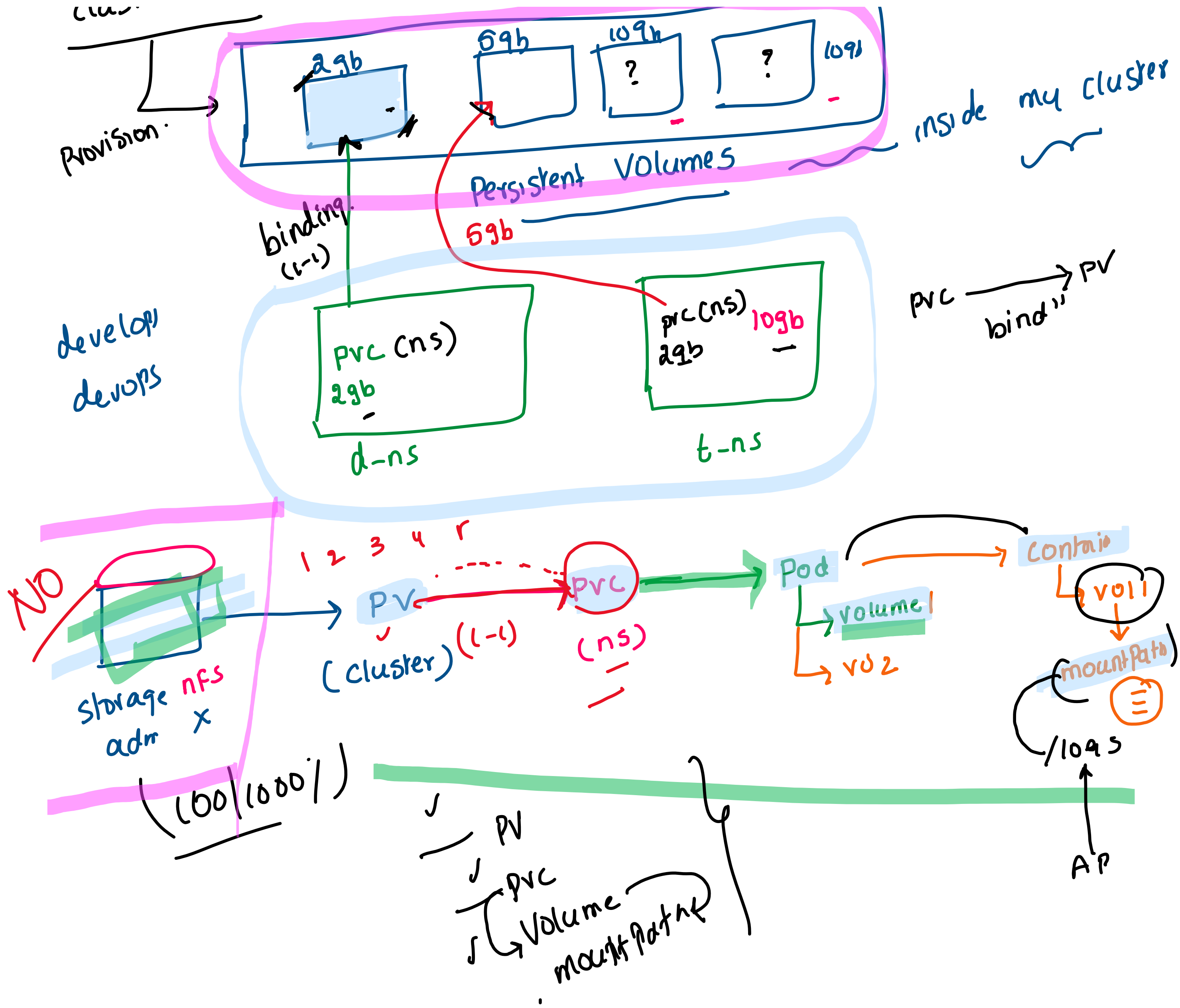
ns — dep — RS — P (?)

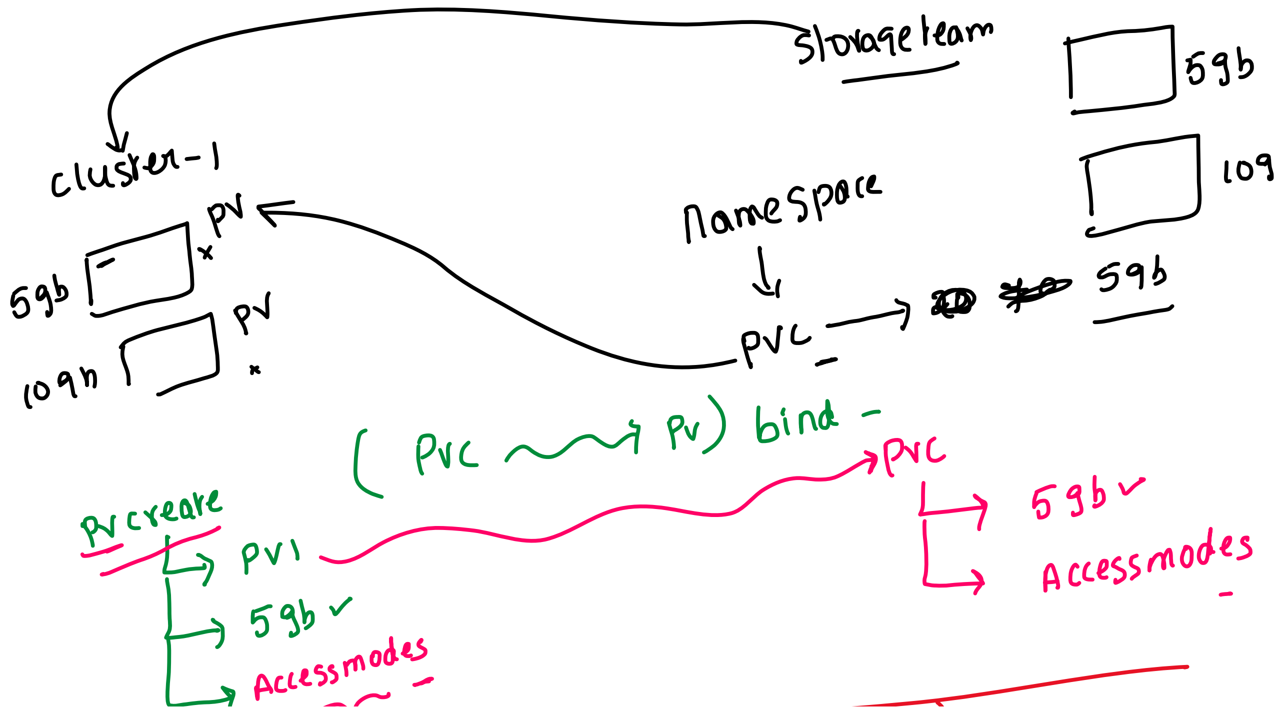
K8S devops adm — K8S cluster (?)

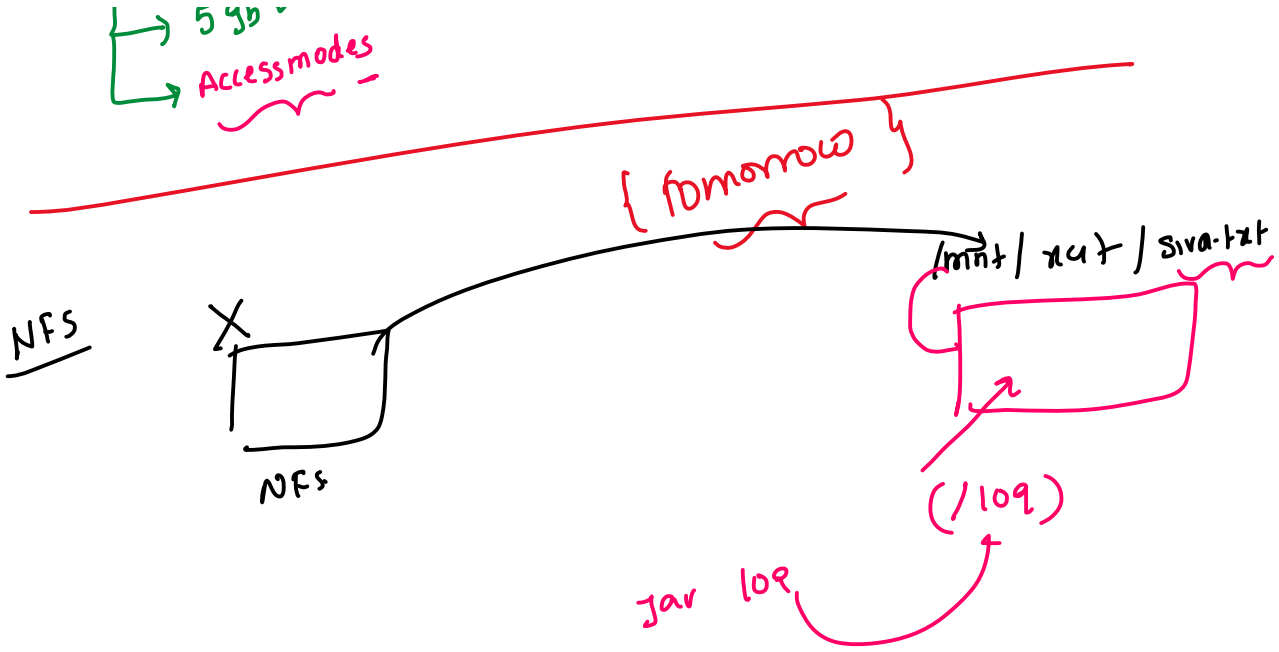


cluster admin




Provision.
2gb
5gb
10gb
?
?
10gb
Persistent Volumes
inside my cluster
5gb
binding (1-1)
develop
devops
pvc (ns)
2gb
d-ns
pvc(ns)
2gb
10gb
t-ns
pvc
bind
pv
NO
1 2 3 4 5
storage nfs
adm
X
PV
(cluster)
(1-1)
pvc
(ns)
Pod
volume1
vol2
contain
vol1
mountPath
/10gs
AP
(100|1000|)
PV
pvc
volume
mountPath


Storage team
5gb
10gb
cluster-1
PV
5gb
PV
10gb
Namespace
pvc
5gb
(pvc → pv) bind -
pv create
pv1
5gb
Accessmodes
pvc
5gb
Accessmodes


5 gb
Accessmodes
{ tomorrow }
/mnt / nfs / siva.txt
NFS
NFS
(/log)
jar log