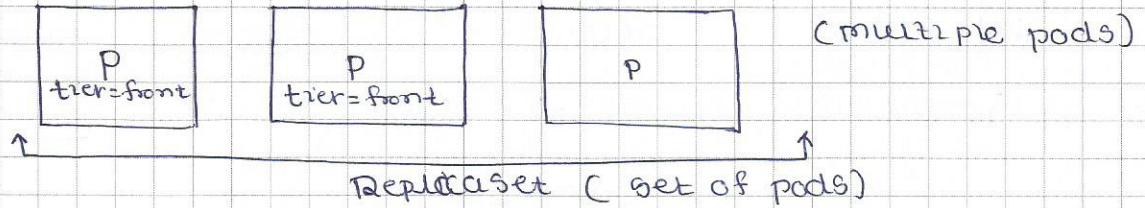


\* Replicaset - multiple pods.



→ YML → 3 - Replicas of nginx (6 matching same condition)

1 nginx

↑ always run 3. (3)

→ cluster One existing + 2 more added.

→ rs.yml (Replicaset yml)

apiVersion: apps/v1

Kind: Replicaset

metadata:

Name: rs

spec:

replicas: (3) ← mess mentions.

Selector:

matchable } what pods.  
tier: frontend (criteria)

template:

metadata:

Labels:

tier: frontend

Spec:

containers:

- name: apache

image: httpd

} kubectl explain rs (replicaset)

{desired states}

must match else.

So and so label matches, join the team.

(matching skills)

Pod

→ Services Configuration

> kubectl create -f rs.yml

> kubectl get rs.

> kubectl get pods.

Name

my-rs-ptwq

RS-name Pod-id

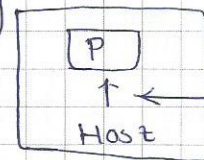
> kubectl get rs -o wide

Name Desired Current

3

> kubectl describe rs

{30-seconds to delete pods}

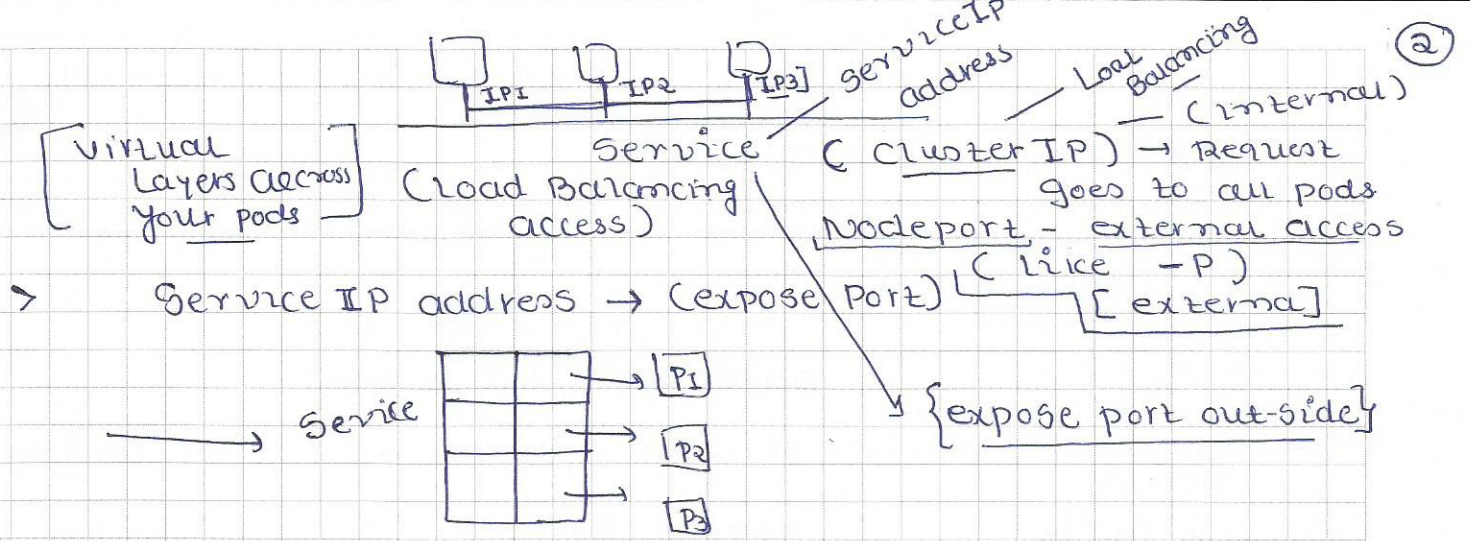


access from host

Port ← '80'

\* Publish Port outside (Kubernetes @ Services)  
'Service'





apiVersion: v1  
kind: Service  
metadata:

name: -

spec:

type: NodePort (external access to outside world)

selector:

tier:

{target port}

Ports:

- protocol: TCP  
port: 80

(3000 → start taking ports)

where it should forward request  
(selecting all the pods where service could make a request)

{where this service to connect. means which port}

> kubectl explain Service version: v1

> Service is created

kubectl get svc

Name	type	cluster-IP
f-svc	NodePort	10.20.30.40

[Service-IP]

ExternalIP X

(For cloud)

Port 80: 32765

Port No. of machine (machine IP address)

Pods

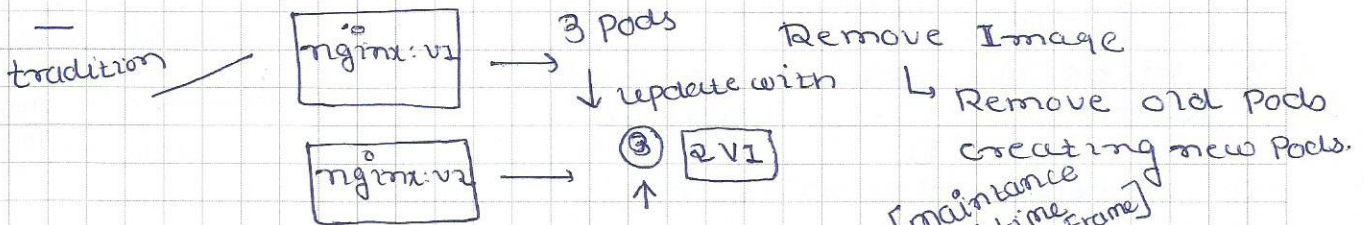
Load Balancing

sends to

→ Create Service of type NodePort

target Port: 80 (where it sends Request)  
External Port: 32765

\* Deployments: (Next Level of RS)



→ Remove existing deploy: v1  
new deploy: v2

[Replace one by one]

Replace: v2 - 10 seconds

[Maintenance time Frame]  
down-time window.

slow slow



↳ Rolling & Rollback (possible)

↳ more Feature to [RS]

\* Example:

> vi deployment.yml

```
apiVersion: app
kind: Deployment
metadata:
  name: kubeserve
```

Deployment = Rolling update  
+ RS

!

spec: replicas: 3 } (internally use - RS)

selector:

matchLabels:

app: kubeservice kubeserve (Label must be ← For container part of pod)

template:

name: kuber

labels:

app: ~~kubeservice~~ kubeserve

Name Ready Up-to-date -- record (why recording)

> ↑ Annotation: \_\_\_\_\_ : ① version → update will be according Rolling

strategy Type: Rolling Update.

Rolling update type: 25% max unavail,

Image: \_\_\_\_\_ ✓ deployment

> kubectl rollout history deployment kubeserve.  
Revision

1 — First deployment.

\* kubectl scale deployment kubeserve --

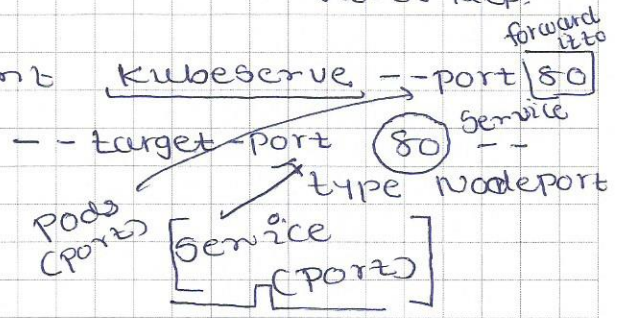
→ scaled.

replicas = ⑤  
no. of rep.

> kubectl expose deployment kubeserve --port 80  
public/outside

80: 31623 / TCP

[externally accessible]



\* kubectl patch deployment -p '{ "spec": { "image":

\* change or update version of Image.

→ Apply new version.

> Rollout → Rollback

↓ APPLY Running Bus.  
"minReadySeconds": 10



\* always update .yaml & apply.

!(\_)

(4)

> write true; do curl http://x47 echo "test"; done

> Set image (update application)  
└─ deployment app = image

--v 6

> Rolling Deployment - {showing deployed}

{6 lines  
verbose}

→ History of deployment

kubectly rollout undo deployment kuberserve.

{Roll back to previous version}

> Rollout history of a deployment.

— @ go back to specific version.

> kubectly - - - - - -to-version=1

{you can go  
to any  
version}  
Version  
no. 1}

> kubectl edit ← {all data in File}

↑ on the fly editing deployment

\* Kubernetes Dashboard: