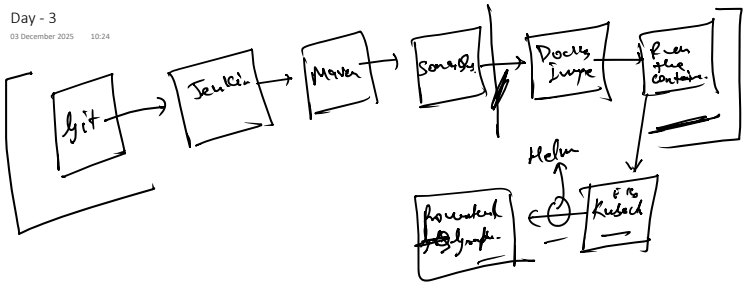
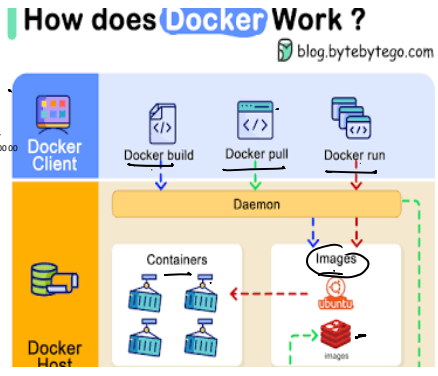
Day - 3

03 December 2025 10:24

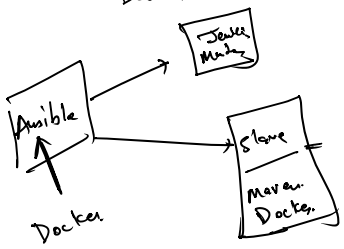


Docker – Containerization tool



Docker
↓
Image (Registry)
Public Registry (Docker Hub)
Private Registry.

Dockerfile → Build → Images → Run → Containers.

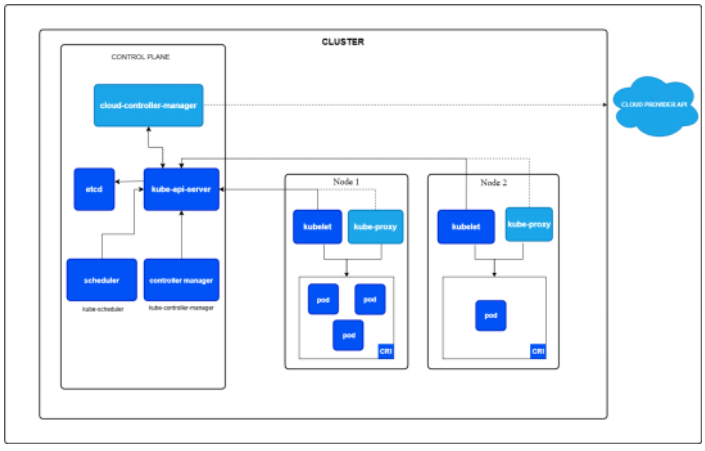


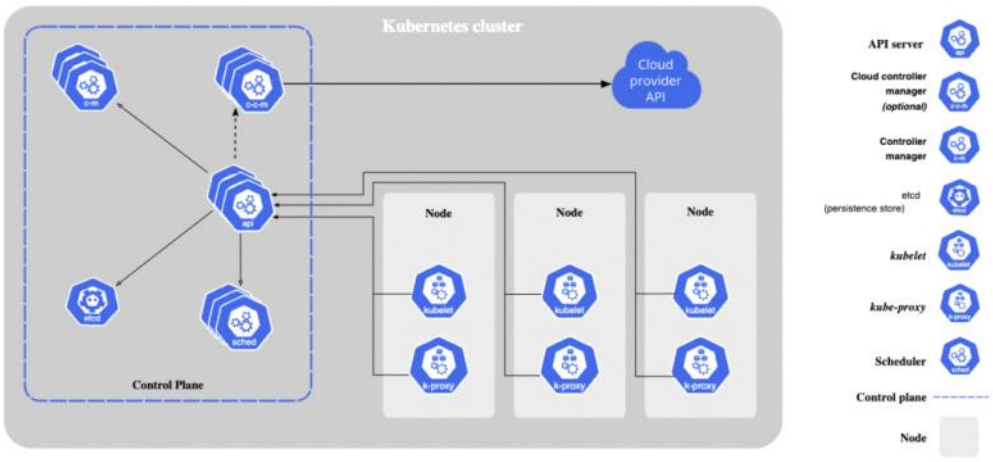
Ansible

Jenkin-slave.yaml

1. Docker.
2. Give Access to file.

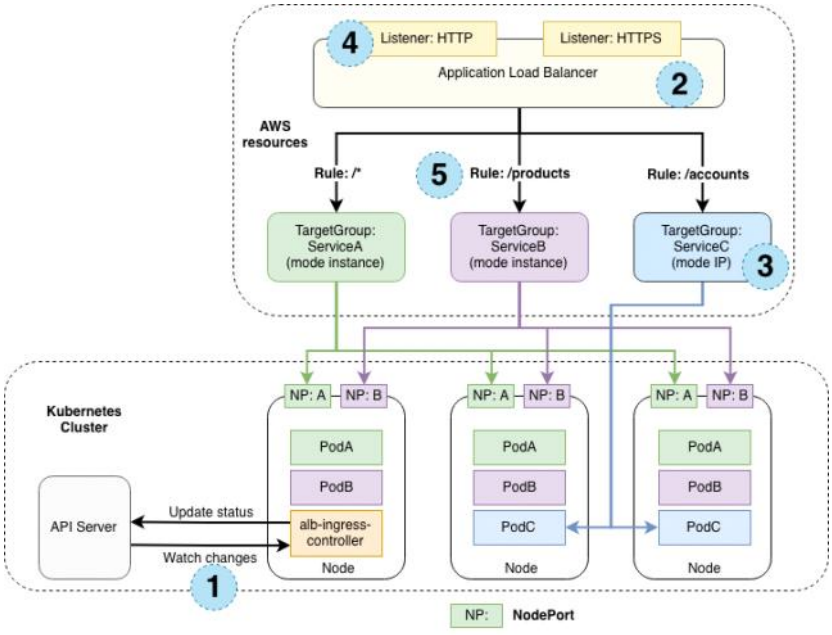
Kubernetes



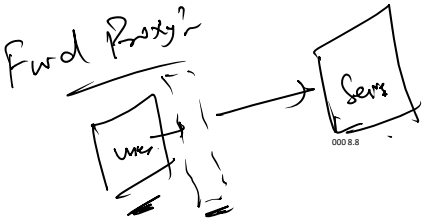


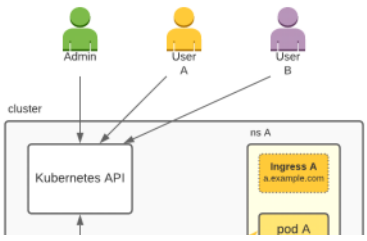
6 Basic Objects of K8S:-

1. Pod
2. Replicaset
3. Deployment
4. Services
5. ConfigMap & Secret
6. Ingress.

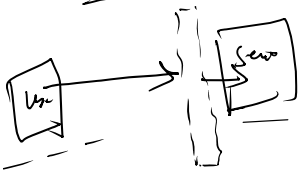


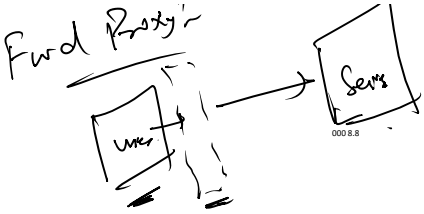
Fwd Proxy:-

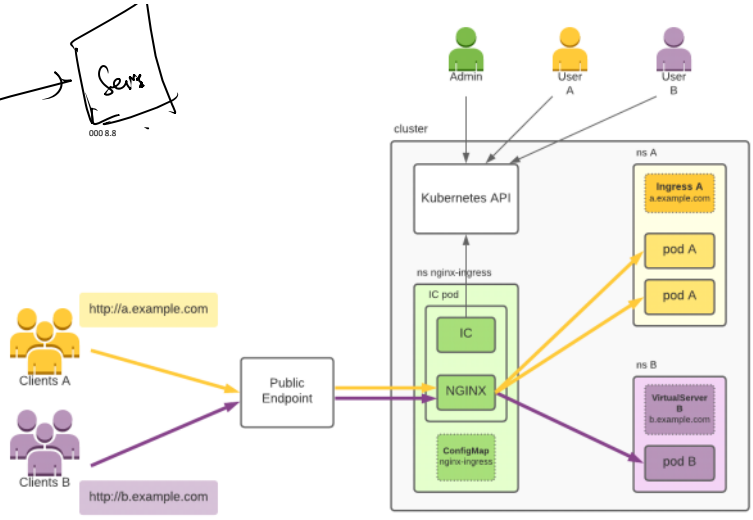


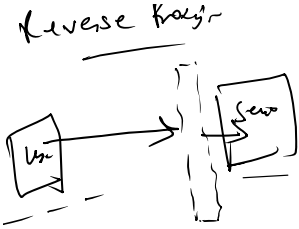


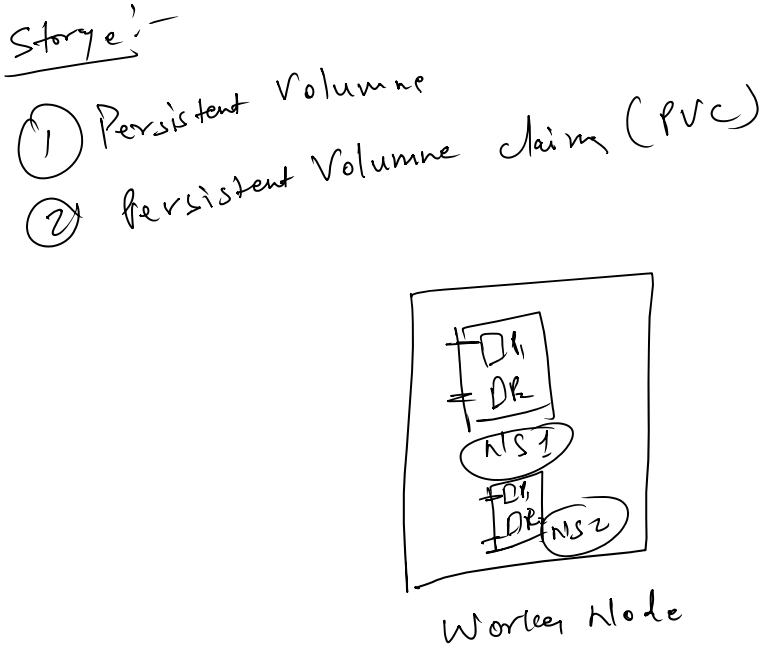
Reverse Proxy:-











Cluster Info

kubectl cluster-info
kubectl get nodes
kubectl describe node <node-name>

Pod Operations

kubectl get pods
kubectl get pods -A
kubectl describe pod mypod
kubectl logs mypod
kubectl exec -it mypod -- bash

Deployment

kubectl get deployments

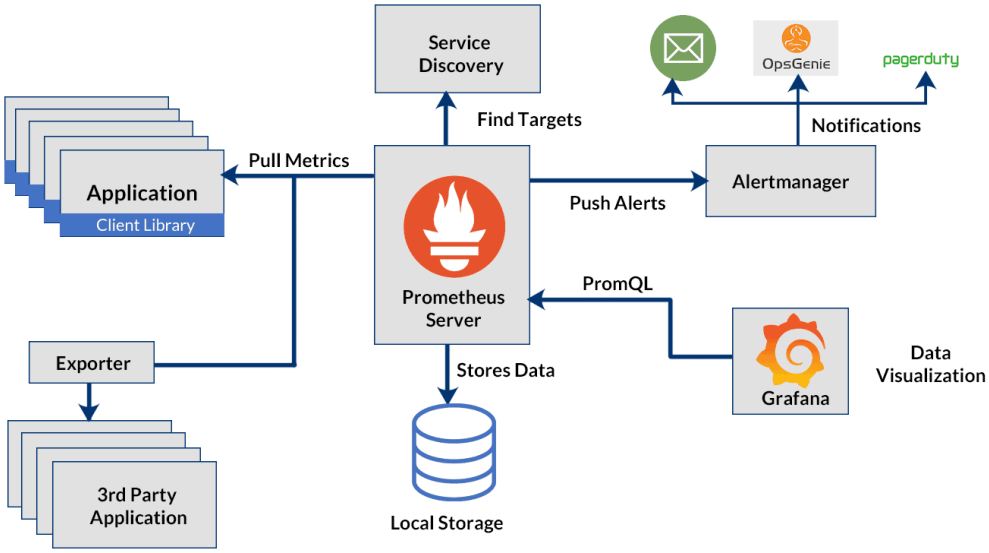
kubectl rollout status deployment/mydeploy
kubectl rollout undo deployment/mydeploy
Service

kubectl get svc
kubectl describe svc mysvc
Apply/Delete

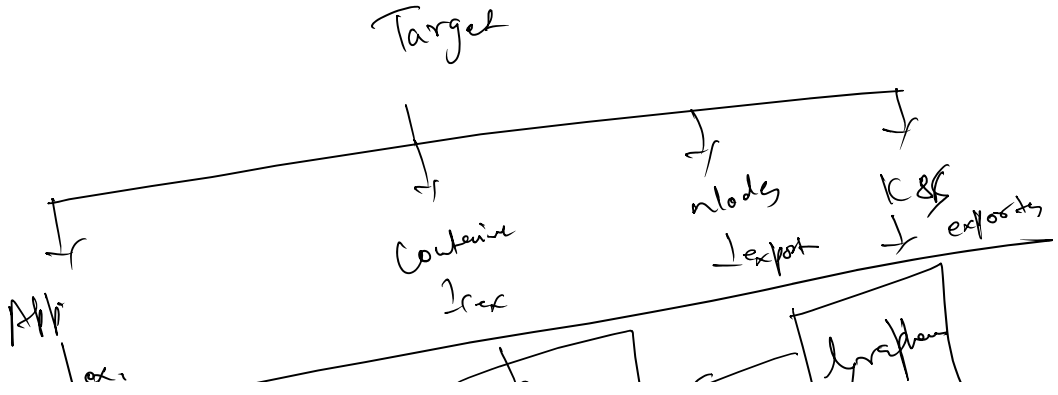
kubectl apply -f file.yaml
kubectl delete -f file.yaml

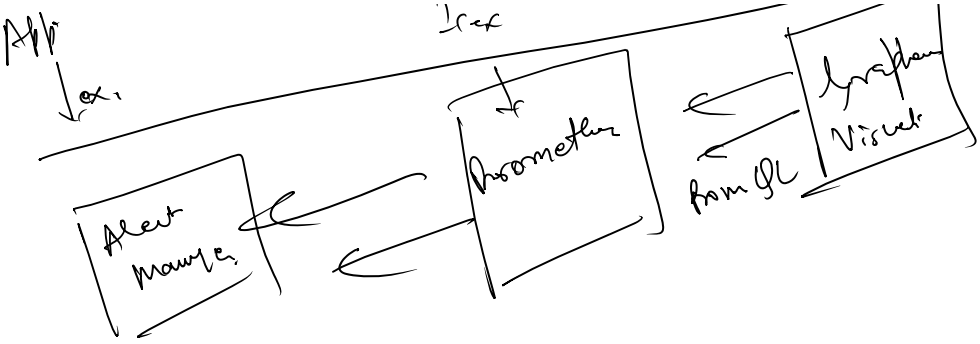
helm chart:- Application Package Manager

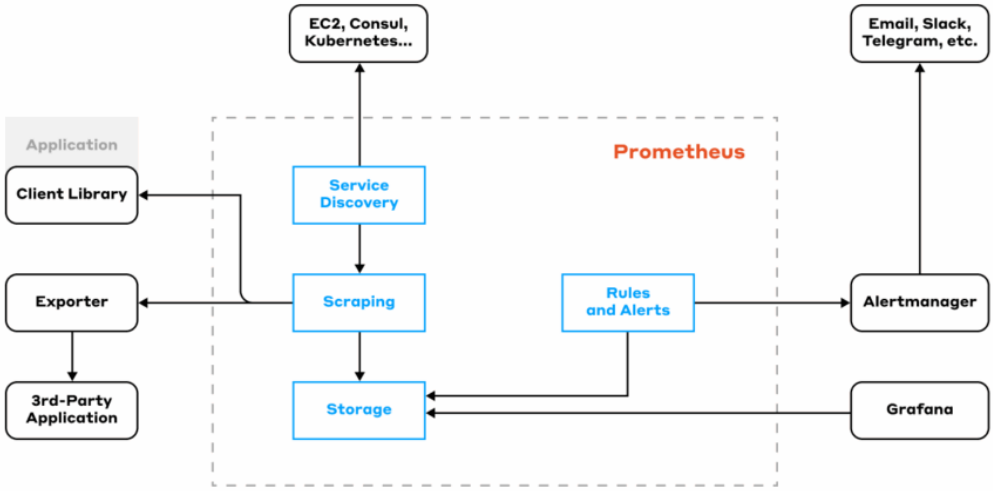
apt
yum

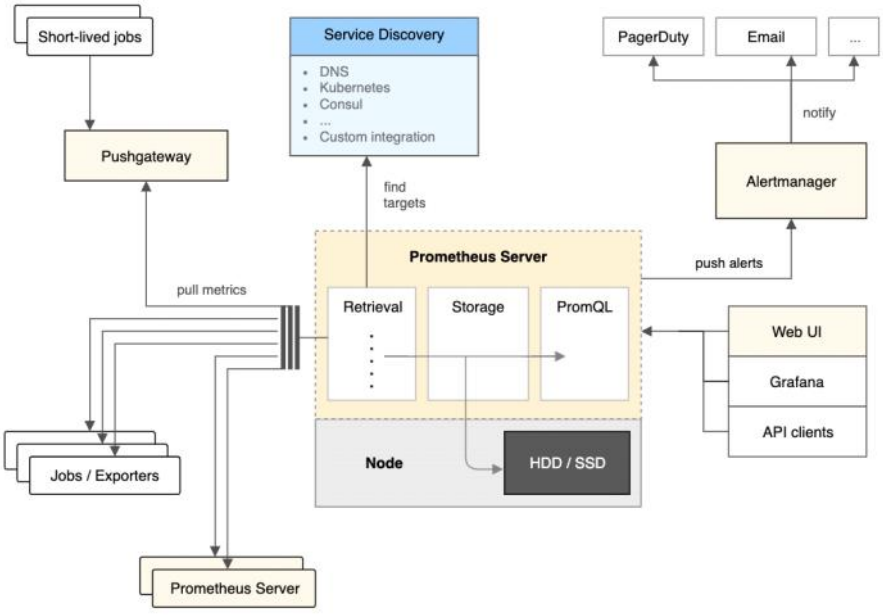


Target






EC2, Consul, Kubernetes...
Email, Slack, Telegram, etc.
Application
Prometheus
Client Library
Service Discovery
Exporter
Scraping
Rules and Alerts
Alertmanager
3rd-Party Application
Storage
Grafana


Short-lived jobs
Service Discovery
DNS
Kubernetes
Consul
...
Custom integration
PagerDuty
Email
...
notify
Pushgateway
find targets
Alertmanager
Prometheus Server
push alerts
pull metrics
Retrieval
Storage
PromQL
Web UI
Grafana
API clients
Node
HDD / SSD
Jobs / Exporters
Prometheus Server

Serverless:-