

1) Docker :-

- Docker Introduction
- Containerization Vs Virtualisation
- Docker Vs Virtual Machine
- Docker Installation & It's Architecture
- Docker Adhoc Commands
- Docker file
- Docker Image
- Docker Container
- Docker Networks
- Docker Volumes
- Docker file & It's Key Words
- Docker Images creation
- Docker Registries (DockerHub, ECR, nexus)
- Docker Compose
- Docker Swarm

2) Kubernetes

- Kubernetes Introduction
- Architecture
- Kubernetes Cluster (Self-Managed) Setup Using Kubeadm.
- Kubernetes Namespace
- Kubernetes Objects
- POD •
- Replication Controller
- Replica Set
- Daemon Set
- Deployment
 - Rolling Update
 - Recreate
- Stateful Set
- Service
- Persistent Volumes
- Persistent Volume Claim
- Dynamic Volumes
- Config Maps & Secrets
- HPA & Metrics Server
- Liveness & Readiness probes

Scheduling & Maintenance

Node Selector

Node Affinity

Pod Affinity & Anti Affinity

Taints & Tolerations

Cordon

Drain

Uncordon

- Resource Quota & Limit Range
- Network Policies
- EKS Kubernetes Cluster Setup
- Load balancer Service
- Ingress Controller & Resource
- Kubernetes RBAC
- Deploy Applications to k8s using Jenkins (CI/CD)
- Helm
- Monitor Kubernetes Using Prometheus and Grafana.
- Log aggregation using EFK