

Docker(1 Week):

1. Containerization Preview
2. Namespaces
3. Docker
4. Docker Architecture
5. Container Lifecycle
6. Docker CLI
7. Port Binding
8. Detached and Foreground Mode
9. Dockerfile
10. Dockerfile Instructions
11. Docker Image
12. Docker Registry
13. Container Storage
14. Volumes
15. Docker Compose
16. Docker Swarm

Kubernetes(3 Weeks):

1. Cluster setup using kubeadm
2. Pods
3. Replicas
4. Deployment
5. Namespace
6. Contexts
7. Daemonsets
8. Cjobs
9. Configmaps
10. Services
11. Labels and Selectors
12. Storage
13. Persistence Volume and Persistence volume claim
14. Networking
15. Rolling updates and rollbacks
16. Scaling
17. Secrets
18. Roles, RoleBinding, ClusterRole, ClusterRoleBinding(RBAC)

- 19.NFS & Dynamic NFS Provisioning
- 20.Stateful set
- 21.Helm 2 packaging
- 22.Helm 3 packaging
- 23.Helm 2 vs Hem 3 difference
- 24.ISTIO(service mesh)
- 25.Ingress Load balancer(NGINX,TRAEFIK,METALLB LoadBalancer)
- 26.Cluster IP, Nodeport, Loadbalancer , Headless service
- 27.TLS
- 28.Troubleshooting
- 29.Cluster Maintenance
- 30.Openshift Introduction
- 31.Openshift architecture and security policies with RBAC
- 32.Sample deployments

Live project on DevOpps:

1. Deployment of Java App / Python app
2. Deployment of Database(sql and no sql(redis))
3. Deployment of logging applications(ELK(elasticsearch,logstash,kibana)/EFK(elasticsearch,fluentd,kibana))
4. Deploement of prometheus and Grafana
5. Deployment of Kafka
6. Deployment of Load balancer(NGINX,TRAEFIK,METALLB LoadBalancer) and loadbalancing with Elk, prometheus, Grafana
7. Deployment of Jenkins
8. Deployment using Ansible
9. Deployment using Terraform
- 10.Deploy all applications to AWS