

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 rolebacks
- 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 Helm 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

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

Live project on DevOps:

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. Deployment 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