

Devops Syllabus

Linux / Shell Scripting

- Basic Linux commands
- Shell Scripting for system Administration

GIT & GITHUB

- Version Controls and its significance
- Git Repositories & GitHub Authentication
- GitHub Branches, Merging & Webhooks
- Understanding stash, diff, rebase, fetch, pull, push
- Overview about Continuous Integration with Jenkins

Maven

- Installation of Maven
- Maven repositories
- Maven Dependencies and Goals
- Integrating with the Jenkins & Nexus
- Package the application using maven and deploy in nexus

Jenkins (CI & CD)

- Installtion and configuring Jenkins
- Ceating CI & CD Pieplines using jenkins
- Jenkins Administration
- Multi Branch pipeline using Jenkins

- Creating the Jobs & Slaves in Jenkins
- Integrating Jenkins with DevOps tools (/terraform/Git / Maven/ Docker/Nexus/Kubernetes &Ansible)

Docker

- Introduction to Docker and Containers
- Docker Hub repositories
- Docker Volumes and Network
- Docker Swarm
- Docker file and Docker Compose
- Create, Pull Docker images and store into AWS ECR

Ansible

- Installing and configuring the Ansible
- Creating the Ansible Playbooks for server Administration
- Ansible Variable and templates
- Ansible Roles & Galaxy
- Ansible Inventories and Ansible Adhoc Commands

Nexus

- Installing and configuring the Nexus
- Creating and Maintaining the Artifactory repositories
- Integrating Nexus with Maven Jenkins & Tomcat servers

Apache Httpd / Apache Tomcat server

- Difference between Apache webserver & Tomcat Application server
- Installing and configuring the httpd and Tomcat
- Create SSL certificates for https communication
- Load Balancing

Kubernetes

- About Kubernetes Cluster & Node Architecture
- Installing kubernetes using AWS EKS / Kubeadm / Rancher
- Describe about pods/services/configMap
- Ingress & Ingress Controller
- Blue Green Deployment & Kubernetes deployments
- setup RBAC on kuberntes cluster
- Rancher RKE

