DevOps Course – Job Ready Training

Get placed in 2 or 3 months with top salaries

1. ***Introduction to DevOps***
    a. What is DevOps?
    b. DevOps Responsibilities
    c. Continuous Integration
    d. Continuous Delivery & Deployments
    e. Configuration Management & Monitoring
    f. Microservices & Containerization
    g. Advantages of DevOps
    h. DevOps Jobs & Future

2. ***Introduction to Version Control System***
    a. Git with GitHub/Bitbucket
    b. Benefits of SCM tools
    c. Installation & Configuration
    d. Mattering using git for DevOps activities
    e. Clone, Push, Fetch, Revert, Reset, HEAD, Diff
    f. Reviewing and Merging with “Pull Request”
    g. Managing Branches & Branching Strategies
    h. Managing Branch permissions
    i. Git Init & Git fork
    j. Resolving Merge Conflicts using diffmerge tool
    k. Merging Strategies
    l. Git Tags
    m. Stash, Rebase, Checkout & Cherry-Pick

3. ***Maven - Build Tool***
    a. Introduction to build tools
    b. Importance of build tools
    c. Going through pom.xml
    d. Working with build commands
    e. Build life cycles, Maven Plugins
    f. Understanding artifacts

g. Maven Repositories
h. Maven dependency management
i. Integrating with Sonatype Nexus
j. Integrating with Docker

4. Managing Artifacts

a. Installing Sonatype Nexus
b. Configuring Nexus as a Service
c. Managing maven dependencies
d. Storing Docker Images

5. Jenkins - Automation Tool

a. Jenkins Installation & Configuration
b. Creating Freestyle and Pipeline Jobs
c. Advanced Jenkins Pipeline Jobs (Groovy DSL)
d. Parameterized builds, Build Triggers
e. Configuring GitHub Webhooks
f. Running Parallel Tasks
g. Master Slave Configurations
h. Managing Users Permissions, Plugins
i. Managing Credentials
j. Managing Tools (Git, Maven, Docker, Ansible)
k. Email & Slack Notifications
l. Automating deployments to Kubernetes cluster.
m. Implementing CI & CD using Docker, Ansible, Nexus & Kubernetes
n. Git Maven & Docker Integration
o. SonarQube Integration
p. Maven Nexus Integration

6. Ansible - Configuration Management

a. Introduction to Ansible
b. Ansible vs Other tools
c. Learning YAML & Writing Playbooks
d. Writing reusable modules using Ansible roles
e. Ansible Facts, Syntax checking, Exception Handling
f. Ansible loops & Conditions
g. Static & Dynamic inventory
h. Hosts Groups Variables & Group Variables
i. Ansible connection types

j. Encrypting sensitive data using Vault
k. Ansible rolling deployments
l. Ad-hoc commands
m. Writing Playbooks
n. Automating SQL deployments
o. Limiting playbook executions by hosts and tags
p. Writing reusable playbooks
q. Ansible modules
r. Dynamic includes
s. Including plays and tasks
t. Dry-runs tags, Conditions loops

7. Docker - Containerization

a. Introduction to Dockers & Microservices
b. Docker vs VMs
c. Microservices Architecture
d. Monolithic applications
e. Why Dockers & benefits
f. Dockerizing Applications using Docker Instructions
g. Docker Architecture & Demons
h. Volumes Environments
i. Dockers in CI/CD workflow
j. Integrating with Jenkins
k. Docker Compose

8. Kubernetes In Production

a. Introduction to Kubernetes
b. Understanding Kubernetes architecture
c. Setting Kubernetes cluster
d. Kubernetes, Pod, Service, Deployment, Replica Set
e. Kubernetes Managing Secrets
f. Kubernetes Namespaces
g. Using rolling deployments
h. Liveness & Readiness probes
i. Taints and tolerations
j. Undoing rollouts
k. Deploying to k8s through Jenkins
l. Stateful and Stateless Applications

m. Using helm for package management
n. Monitoring Kubernetes Nodes and Pods
o. Networking and DNS
p. Volumes, Persistent Volumes & Volume Claims

9. Nginx (reverse proxy and load balancer)

a. Introduction to Nginx
b. Installing Nginx
c. Configuring Nginx as a reverser proxy
d. Configuring Nginx as a load balancer
e. SSL Certs configuration

10. Monitoring & Logging

a. Installing & Configuring Prometheus and Grafana for monitoring
b. Setting up ELK stack for centralized logging.

11. Linux Essentials for DevOps

a. Linux fundamentals
b. Linux important commands
c. Managing Users Groups & Permissions
d. Linux troubleshooting commands
e. Password less Authentication
f. Troubleshooting Issues
g. ssh, scp, ps grep sed & find
h. Package managers (RPM & YUM)
i. top netstat vmstat & vi editors

12. Project Management Tools

a. JIRA, Slack & Agile Methodology