

Introduction to DevOps

- What is **DevOps**?
- History of DevOps
- **Dev and Ops**
- DevOps definitions, Software Development Life Cycle and main objectives of the DevOps
- Infrastructure As A Code
- Prerequisites for DevOps
- Tools (Jenkins, Ansible, Docker and so on.)
- Continuous Integration and Development

Linux Concepts

- Linux Installation
- User Management
- Package Management
- Networking

Automation Concepts

- OS Basics
- Scripting Introduction
- Learn Shell Scripting
- Database Concepts

Revision Controls System

- Git Controls
- Working with local repositories, remote repositories
- branching
- merging
- cloning
- fetch/pull
- Installation of Git Server



Configuration Management

- Ansible Introduction
- Ansible server Hands-on

Environments

- Inventory file
- Modules
- playbooks
- SSH connectivity

Build Automation

- Introduction with Maven
- Maven structure and Phases
- Installation of Maven
- Configuration
- jar/war project structure

Tomcat Web Server

- Installation and Configuration
- Tomcat Manager
- Application Management
- App Deployment Methods

Nexus Artifacts/Proxy Tool

- Introduction to Nexus
- Installation and Configuration
- Repository Management
- Proxy Management
- Integration with Maven

Jenkins Framework

- Introduction to Jenkins
- Jenkins Installation
- User Profile and Management



- Security and Plugins Management
- Builds Setup
- Integration with Git, Maven, Tomcat

Sonarqube

- Introduction to sonarqube
- Installation of sonarqube

Working with Docker

- Introduction to Docker
- Docker Terminologies
- Installation of Docker
- Docker image creation and Docker hands-on

System Monitoring

- Introduction to Nagios
- Concepts behind Nagios
- Nagios Installation
- Hands-on

Docker Swarm

- Creation of Docker swarm
- Managing manager nodes
- Managing worker nodes
- Creating services
- Scaling of services
- Auto Load balancing concepts

Docker Networking

- Bridge networks
- Host network
- Overlay network
- Hands on

