



# DevOps

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- Why DevOps?
- Who can Learn DevOps?
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- Diff b/w agile & waterfall
- Devops and agile
- Devops Functionalities and tools

### ○ Source code management

- What is SCM
- What is version control system?
- Types of version controls
- Diff b/w CVS & DVS

### ○ Installation of GIT

- Installation in windows
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## 02 Learning Path

### ○ GIT command line

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- Code check-in & check-out
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- Creating Projects
- Creating Users
- Creating Groups
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- Install and Configure GitLab in Centos
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## 03 Learning Path

### ○ Continuous integration

- Introduction to continuous integration
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- Jenkins Global Tool Configuration
  - Setup Git with jenkins
  - Setup Maven in Jenkins
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- Integrating With All DevOps Tools
- Creating Jenkins CI/CD Flow using Pipelines
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## 04 Learning Path

### ○ Build Tools

#### — OVERVIEW

- What is Maven?
- Maven Evolution
- Objective
- Convention over Configuration
- Features of Maven

#### — ENVIRONMENT SETUP

- System Requirement

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- Super POM

#### — BUILD LIFE CYCLE

- What is Build Lifecycle?
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- Default (or Build) Lifecycle
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#### — REPOSITORIES

- What is a Maven Repository?
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- Maven Dependency Search Sequence

## 05 Learning Path

### ○ Build Tools

#### — SNAPSHOTS

- What is SNAPSHOT?
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#### — BUILD AUTOMATION

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- Using Continuous Integration Service with Maven

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- Problem Statement
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#### — WEB APPLICATION

- Create Web Application
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## 06 Learning Path

### Configuration management

#### Puppet introduction

- Puppet overview
- Installing puppet on centos
- Configuring puppet master and agent
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#### Puppet language basics

- Resources
- Resource collectors
- Virtual resources
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- Module structure
- Install lamp with pre-existing modules
- Installing apache tomcat with puppet

#### Ansible

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- Ansible Ad Hoc Commands
- Ansible Roles
- Ansible Galaxy
- Introduction to Ansible Tower

## 07 Learning Path

### Continuous integration

- Introduction of Virtualization
- Introduction of Containerization
- Dockers vs. VMs
- Dockers Key Concepts
  - Docker CLI
  - Docker Daemon
  - Docker Machine
  - Docker Images
  - Docker Container
- Docker Architecture
- Dockers hub
- Downloading docker images
- Understanding the containers
- Docker Basic Workflow
- Running commands in container
- Docker Registry
- Docker Volumes
- Docker Networking

### Container Orchestration

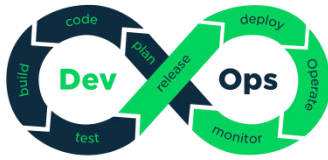
- Configure Docker Swarm
- Adding Nodes to Docker Swarm
- Deploy Hello-World Application in Docker Swarm



## 08 Learning Path

### O Kubernetes

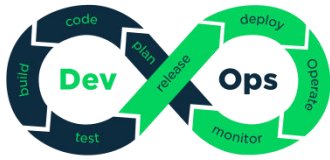
- Features of Kubernetes
- Architecture of Kubernetes
- Install and Configure Kubernetes ENV
- Introduction of Kubernetes Images
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- Kubernetes Node
- Kubernetes Service
- Kubernetes Pod
- Kubernetes Volumes
- Kubernetes Replication Controls
- Kubernetes API
- Introduction to Kubectl
- Creating App
- App deployment
- Auto Scaling



# About the Course

In this module, you will learn about DevOps, its evolution, the interrelation between agile and DevOps, technical and security challenges in DevOps, the difference between requirements and architecture, and ways to write user acceptance tests. DevOps tools such as Git, Docker, Jenkins, Puppet and Nagios in practical, hands on and interactive approach. The Devops training course focuses heavily on the use of Docker containers, a technology that is revolutionizing the way apps are deployed in the cloud today and is a critical skillset to master in the cloud age

**DURATION : - 50 HRS**



# Key Features

- Real Time Projects
- Exam Preparation
- Mock Test
- Job Assistance
- Training Material
- Lab Videos
- Mock test for Certification
- Resume Updating
- Interview Preparation



## WHO SHOULD ATTEND

This DevOps training course will be of benefit the following professional roles:

- Software Developers
- Technical Project Managers
- Architects
- Operations Support
- Deployment engineers
- IT managers
- Development managers

## PREREQUISITES

Software development, preferably in Java, and the UNIX/Linux command line tools are essential for this course.