

DEVOPS ONLINE TRAINING

Introduction to Devops

- Define Devops
- What is Devops
- SDLC models,Lean,ITIL,Agile
- Why Devops?
- History of Devops
- Devops Stakeholders
- Devops Goals
- Important terminology
- Devops perspective
- Devops and Agile
- Devops Tools
- Configuration management
- Continuous Integration and Deployment

LINUX Basics:

- Unix and linux difference
- Linux File system structure
- Basic linux/unix commands
- Changing file permissions and ownership
- Types of links soft and hard link
- Filter commands
- Simple filter and advance filter commands
- Start and stop services
- Find and kill the process with id and name
- Package installation using RPM and YUM

GIT: Version Control:

- Introduction
- Version control systems 2. Local, Centralized and distributed
- Installing Git
- Installing on Linux 2. Installing on Windows 3. Initial setup
- Git Essentials
- Creating repository 2. Cloning, check-in and committing 3. Fetch pull and remote 4. Branching

JENKINS – Continuous Integration

• Introduction.

1. Understanding continuous integration
2. Introduction about Jenkins
3. Build Cycle
4. Jenkins Architecture

• Installation

1. Obtaining and installing Jenkins
2. Installing and configuring GIT
3. Java installation and configuration
4. Maven Installation
5. Exploring Jenkins Dashboard.

• Jobs

1. Creating Jobs
2. Running the Jobs
3. Adding and updating Plugins
4. Disabling and deleting jobs

• Build Deployments

1. Understanding Deployment
2. Tomcat installation and configuration
3. Deployment Plugins
4. Deploying a war file from Jenkins to Tomcat
5. Maven Build Scripts

• Securing Jenkins

1. Authentication
2. Jenkins Plugin
3. Authorization
4. Confidentiality
5. Creating users
6. Best Practices for Jenkins

• Pipeline Automation

NEXUS

- Nexus prerequisites

- Installing and Running Nexus
- Using the Nexus User Interface

ANSIBLE:

- Ansible: introduction
- Ansible: Installation
- Ansible: Installation demo
- Ansible: First Playbook
- Ansible: First Playbook demo
- Ansible: Roles
- Ansible: Best Practices
- Ansible: Directory Layout
- Ansible Tower

DOCKER- CONTAINERS:

• ***Introduction***

1. What is a Docker
2. Use case of Docker
3. Platforms for Docker
4. Dockers vs Virtualization

• ***Architecture***

1. Docker Architecture
2. Important Docker components
3. Understanding the Docker components

• ***Installation***

1. Installing Docker on Linux
2. Understanding Installation of Docker on Windows
3. Some Docker commands.

• ***Provisioning***

1. Docker Hub
2. Downloading Docker images
3. Running Docker images
4. Running commands in container
5. Running multiple containers.

• ***Custom images***

1. Creating a custom image
2. Running a container from the custom image
3. Publishing the custom image.

- ***Docker Networking***

1. Accessing containers
2. Linking containers
3. Exposing container ports
4. Container Routing