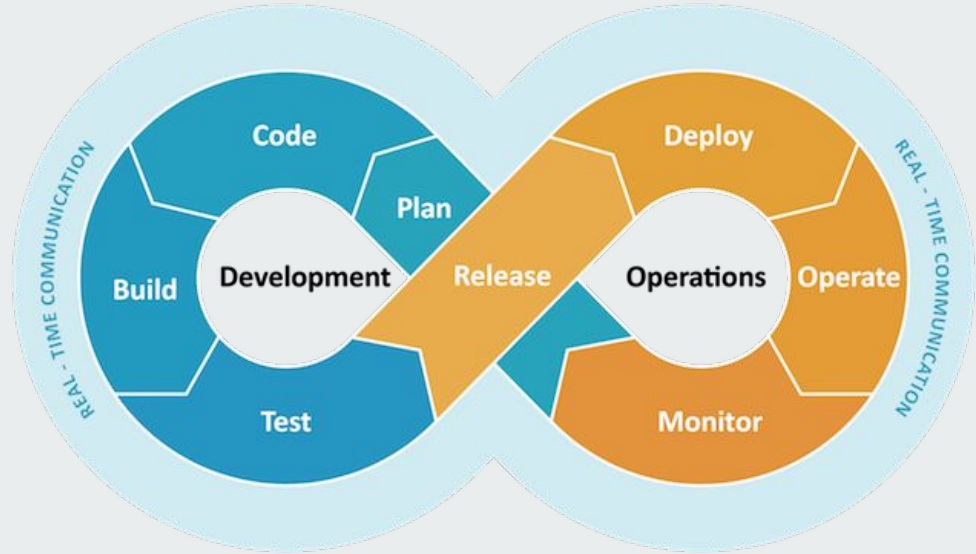


DevOps



Best Practice [40 hours]

Sandeep Anuragi

RHCE | ANSIBLE | DEVOPS | OPENSHIFT | OPENSTACK

DevOps

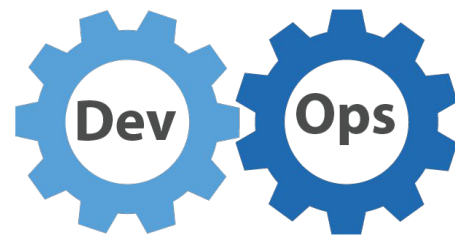


Table of Contents

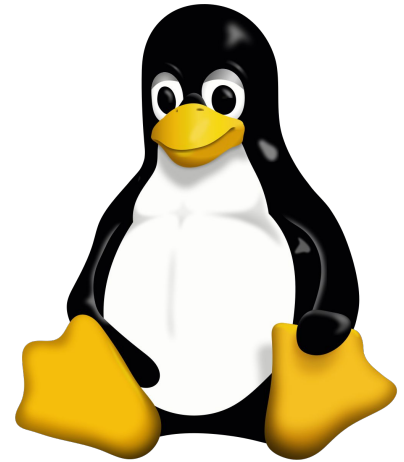
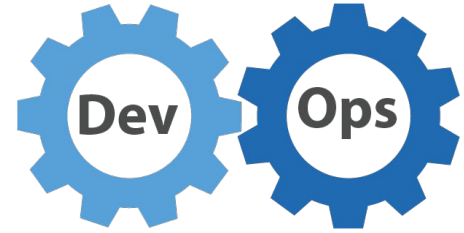
1. Linux Basics
2. Introduction to devops
3. Virtualization
4. Version Control, GIT
5. Jenkins CI/CD
6. Docker : swarm + podman
7. Kubernetes Cluster Administrator
8. Ansible Automation
9. Monitoring with Nagios



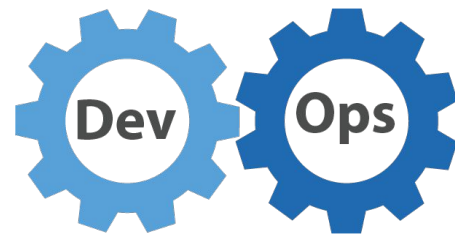
Linux Basics

- Linux File system structure
- Basic linux/unix commands
- User & Permissions
- Search and Find Commands
- Start and stop systemd services
- Find and kill the process with id and name
- Package installation using YUM

DevOps

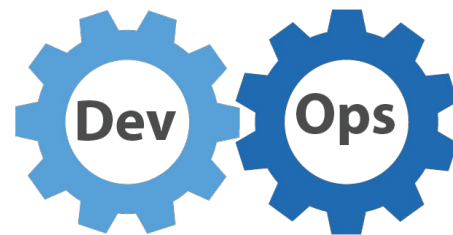


DevOps



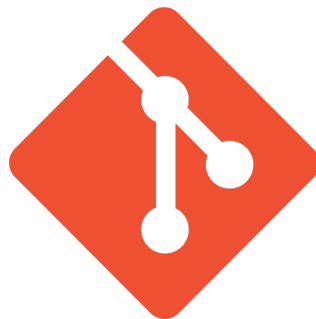
Introduction to DevOps

- What is Cloud Computing ?
- Understand DevOps, its roles and responsibilities
- DevOps problems and solutions
- Identify cultural impediments and overcome it
- Understand the infrastructure layouts and its challenges
- Network Concepts at Enterprise Scale



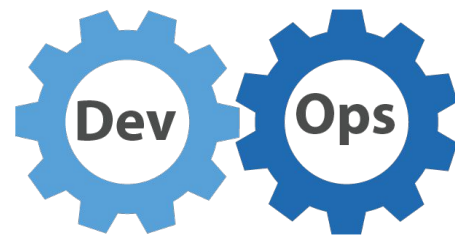
Introduction to **Git**

- What is **GIT**?
- How GIT Works?
- Working Locally with **GIT**
- Working Remotely with **GIT**
- Branching and Merging
- Resolve merge Conflict



git

DevOps



Introduction to Jenkins

- What is JENKINS?
- Install and setup Jenkins
- Continuous Build and Deployment
- Build CI/CD Pipeline View Project
- Generate Reports & Enable Mail Notification Jenkins to run script remotely
- Add Worker Nodes
- Integration with GiT, ANSIBLE, DOCKER & MAVEN

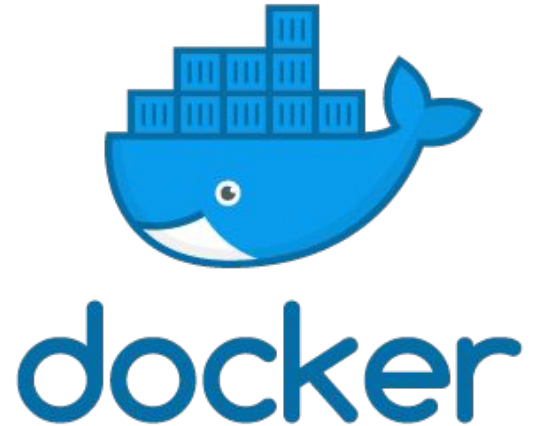
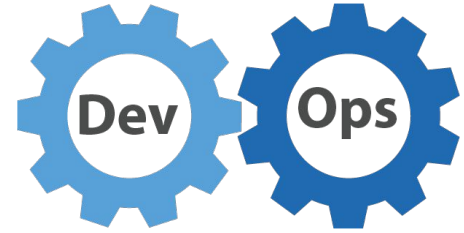


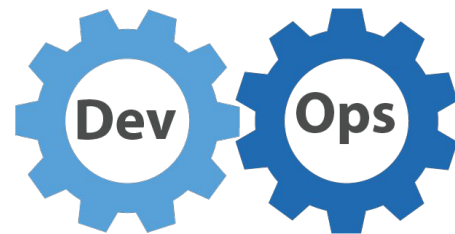
Jenkins
DevOps



Introduction to Docker

- What is Docker?
- Install and setup Docker
- Major Docker Components
- Manage Docker Images & container
- Manage Docker images from Docker file
- Docker Volume
- Docker Network
- Docker Compose & Swarm





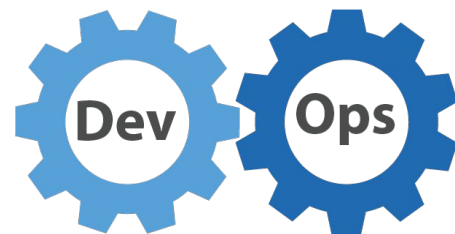
Introduction to **Kubernetes**

- Understand Kubernetes Core Concepts
- Deploy a Kubernetes cluster
- Add a Kubernetes Worker Cluster Node
- Secure cluster objects using TLS Certificates
- Leverage Kubernetes Networking Concepts



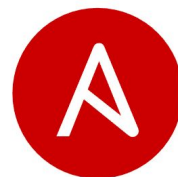
kubernetes

DevOps

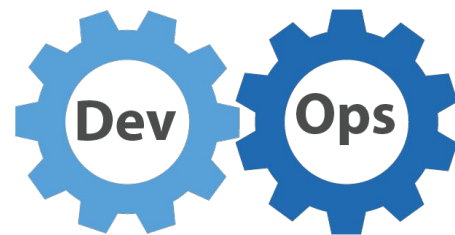


Introduction to **Ansible**

- What is ANSIBLE ?
- Install and Configure Ansible
- Ansible Modules
- Manage tasks by Ad-hoc method
- Manage tasks by Playbook YAML
- Variables & Facts in playbook
- Condition & Loop and Notify & handler in playbook
- Manage Templates file And Roles Structure
- Vault Encryption in Ansible
- Ansible Tower Management



RED HAT®
ANSIBLE®
Tower



Introduction to Nagios

- What is Nagios ?
- Understand Nagios Architecture
- Install and Setup Nagios on Linux
- Install and setup NRPE client
- Setup Monitoring

Nagios[®]