DevOps Training Syllabus

Introduction to DevOps
- Benefits for DevOps Environment
- DevOps Lifecycle, stages, Delivery pipeline

DevOps on Cloud
- Basics of Cloud Computing
- Introducing to Amazon web services

Version control with Git
- What is version control?
- Git introduction & installation
- Git commands and remote repository

Containerization Using Docker
- Docker lifecycle and docker ecosystem
- Understanding of Docker images and containers
- Deploying a Multi-tier Application Using Docker Network
- Using Docker Compose to Deploy Containers

Configuration Management Using Ansible
- What is Ansible?
- Ansible Architecture
- Setting up Master Slave using Ansible
- Ansible Playbook and Roles
- Applying configuration using Ansible

Continuous Integration with Jenkins
- What is Continuous Integration?
- Jenkins Master-Slave Architecture
- Understanding CI/CD Pipelines
- Creating an end-to-end automated CI/CD Pipeline

Continuous Orchestration Using Kubernetes
- Overview of Kubernetes
- Kubernetes Cluster Architecture
- Understanding concepts of Pods, Replica sets, deployments and namespaces
- Understanding the concepts of services and networking
- Persistent volumes and persistent volume claims
- Design of Pods
- Understanding labels, selectors, jobs, and schedulers

Terraform Modules and Workspaces

- What is Infrastructure as a code?
- Infrastructure as Code (IaC) vs Configuration Management (CM)
- Introduction to Terraform
- Installing Terraform on AWS
- Operations in Terraform: init, plan, apply, destroy
- Deploying an end-to-end architecture on AWS using Terraform