**Introduction of 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

**Amazon Web Service**

Compute Fundamentals For AWS

Create Your First Amazon EC2 Instance (Linux)

Managing Instance Volumes Using EBS

Using Elastic Load Balancing & EC2 Auto Scaling to Support AWS Workloads

**Version Control, GIT**

• Introduction

• How GIT Works

• Working Locally with GIT

• Working Remotely with GIT

• Branching and Merging

• Resolve merge Conflict

**Jenkins**

• Introduction of Jenkins

• Install and setup Jenkins

• Continuous Build and Deployment

• Build Pipeline View Project

• Generate Reports & Enable Mail Notification Jenkins to run script remotely

• Run Jenkins behind apache proxy

**Docker**

• Docker Introduction

• Docker Installation

• Major Docker Components

• Manage Docker Images & container

• Manage Docker images from Docker file

**Ansible**

• Introduction about Automation

• Ansible architecture

• Ansible Modules

• Manage tasks by Add-hoc method

• How to write Playbooks

• Variables and Facts in Playbook

• Ansible Tower Management

**Monitoring with Nagios**

• Nagios Overview

• Understand Nagios Architecture

• Install and Setup Nagios on Linux

• Install and setup NRPE client

• Setup monitoring

• Enable email alert

**Kubernetes**

• Understand Kubernetes Core Concepts

• Deploy a Kubernetes cluster

• Secure cluster objects using TLS Certificates

• Leverage Kubernetes Networking Concepts

Deploy Services and Load Balancers to route traffic

• Implement different Pod Scheduling technique

• Use various Controllers to manage your applications