

DevOps Foundation**Duration – 3 Days / 24 Hours****Program Description**

This program provides a practical introduction to DevOps, covering core concepts in networking, Linux, and application management.

Participants will learn key skills in revision control, build automation, and CI/CD pipelines using Jenkins, along with hands-on experience in Docker for containerization.

Participants will be equipped to streamline development processes and deploy applications efficiently.

Learning Goals

- ❖ Understand DevOps principles and their impact on development workflows.
- ❖ Master Linux basics for system management.
- ❖ Use Git for version control and collaboration.
- ❖ Automate builds to increase efficiency and reduce errors.
- ❖ Create CI/CD pipelines with Jenkins for continuous integration.
- ❖ Work with Docker to containerize and deploy applications.

Course Topics

- ❖ Basics of DevOps, Networking and Application
- ❖ Linux Concepts
- ❖ Revision Control System
- ❖ Build Automation [Maven/Gradle]
- ❖ CI/CD Jenkins Framework
- ❖ Working With Docker

DevOps and Infrastructure Automation**Duration – 4 Days / 32 Hours****Program Description**

This program offers a hands-on introduction to essential DevOps concepts, tools, and techniques. It covers the basics of networking, Linux, and revision control, with deeper dives into build automation using Maven/Gradle, and CI/CD pipelines with Jenkins.

Participants will explore containerization with Docker, orchestration using Kubernetes, and infrastructure automation with Terraform.

Advanced learning includes Helm for container management, equipping students with a comprehensive toolkit for modern application development and deployment.

Learning Goals

- ❖ Master DevOps fundamentals
- ❖ Automate builds using Maven/Gradle for faster, more reliable development.
- ❖ Set up CI/CD pipelines with Jenkins to streamline software delivery.
- ❖ Containerize applications with Docker and orchestrate them using Kubernetes.
- ❖ Automate infrastructure with Terraform for scalable deployment.
- ❖ Learn Helm for effective container management and application deployment.

Course Topics

- ❖ Basics of DevOps, Networking and Application
- ❖ Linux Concepts
- ❖ Revision Control System
- ❖ Build Automation [Maven/Gradle]
- ❖ CI/CD Jenkins Framework
- ❖ Container Concepts [Docker]/Container Orchestration [Kubernetes]
- ❖ Infrastructure as Code [Terraform for Beginners]
- ❖ Introduction to AWS/Azure [VM Provisioning and Configuration with Terraform on AWS and Azure]
- ❖ Advanced Learning [Helm for Beginners]

DevOps Lifecycle and Monitoring**Duration – 60 Hours****Program Description**

This program equips students with essential DevOps skills, covering networking, Linux, and version control.

It includes hands-on learning with tools for configuration management (Chef/Puppet/Ansible), build automation (Maven/Gradle), CI/CD (Jenkins), containerization (Docker), orchestration (Kubernetes), and infrastructure automation (Terraform).

Advanced topics include Istio service mesh, GitOps with Argo CD, and observability using Prometheus and Dynatrace, preparing participants for modern application development and deployment.

Learning Goals

- ❖ Master DevOps fundamentals
- ❖ Implement configuration management using Chef, Puppet, or Ansible.
- ❖ Automate builds with Maven/Gradle and create CI/CD pipelines using Jenkins.
- ❖ Containerize applications with Docker and orchestrate with Kubernetes.
- ❖ Automate infrastructure using Terraform.
- ❖ Explore service mesh with Istio and adopt GitOps using Argo CD.
- ❖ Monitor applications with Prometheus and Dynatrace for improved observability

Course Topics

- ❖ Basics of DevOps, Networking and Application
- ❖ Linux Concepts
- ❖ Revision Control System
- ❖ Configuration Management [Chef/Puppet/Ansible]
- ❖ Build Automation [Maven/Gradle]
- ❖ CI/CD Jenkins Framework
- ❖ Infrastructure as Code [Terraform for Beginners]
- ❖ Container Concepts [Docker]/Container Orchestration [Kubernetes]
- ❖ Advanced Learning [Helm for Beginners]
- ❖ Istio Service Mesh
- ❖ GitOps with Argo CD
- ❖ Observability fundamentals [Prometheus]
- ❖ Application Monitoring [Dynatrace].