

DCT DEVOPS ENABLEMENT FOR IT ADMINISTRATORS



The DCT DevOps Fundamentals course is a 4-day instructor-led program for IT professionals, covering DevOps principles, automation, modern toolchains, and cloud-native operations through hands-on learning.

Duration: 4 Days

Course Code: DCT - DS - DE - IA

Overview:

- This 4-day instructor-led course is designed for IT administrators and infrastructure professionals who want to understand and support DevOps practices in their organizations. Without requiring deep coding or engineering skills, the course provides a practical overview of DevOps principles, automation strategies, modern toolchains, and cloud-native operations. Participants will explore how to align infrastructure with DevOps workflows, evaluate tools like Jenkins, Terraform, Docker, and Kubernetes, and understand how to support secure, scalable, and observable systems.
- Through demos, case studies, and guided discussions, attendees will gain the confidence to collaborate with DevOps teams, contribute to automation initiatives, and modernize IT operations.

Audience Profile

This course is designed for IT professionals who are responsible for managing, supporting, or modernizing infrastructure and operations in environments adopting DevOps practices. Attendees are typically involved in system administration, network operations, or infrastructure management and are looking to align their roles with modern DevOps workflows.

The attendees could be in or have experience with any of these roles:

- System Administrators
- Infrastructure Engineers
- Network Administrators
- IT Operations Specialists
- Technical Support Leads
- Cloud Operations Staff

Prerequisites

- 2+ years of experience in IT operations or system administration
- Familiarity with Linux/Windows server environments
- Basic understanding of cloud platforms (AWS, Azure, or GCP)
- Exposure to scripting (e.g., Bash, PowerShell, or Python) is helpful but not required

Course Outline

Module 1: DevOps Foundations & Cultural Shift

- What is DevOps? History, Drivers, and Benefits
- DevOps vs Traditional IT
- The CALMS Model
- DevOps Lifecycle Overview
- DevOps Culture: Collaboration, Feedback, and Trust

Module 2: CI/CD & Infrastructure Automation

- CI/CD Concepts and Pipeline Overview
- Tools Overview: Jenkins, GitHub Actions, GitLab CI/CD
- Infrastructure as Code (IaC): Concepts and Benefits
- Tools Overview: Terraform, Ansible
- Configuration Management vs Provisioning
- Demo: CI/CD Pipeline and IaC Workflow

Module 3: Containers, Orchestration & Cloud

- Introduction to Docker and Containerization
- Kubernetes Architecture and Use Cases
- Helm Charts and Deployment Strategies
- Cloud-Native Infrastructure: AWS, Azure, GCP
- DevOps in Hybrid and Multi-Cloud Environments
- Demo: Container Deployment to Kubernetes

Module 4: Monitoring, Logging & DevSecOps

- Observability: Metrics, Logs, Traces
- Tools Overview: Prometheus, Grafana, ELK Stack
- DevSecOps Principles: Shifting Security Left
- Security in CI/CD and Infrastructure
- Secrets Management and Compliance
- Case Study: Monitoring and Security Integration