

# MLOps Training

## COURSE CONTENT

### GET IN TOUCH



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## About Multisoft

Train yourself with the best and develop valuable in-demand skills with Multisoft Systems. A leading certification training provider, Multisoft collaborates with top technologies to bring world-class one-on-one and certification trainings. With the goal to empower professionals and business across the globe, we offer more than 1500 training courses, which are delivered by Multisoft's global subject matter experts. We offer tailored corporate training; project Based Training, comprehensive learning solution with lifetime e-learning access, after training support and globally recognized training certificates.

## About Course

MLOps, or Machine Learning Operations, is an essential discipline for professionals involved in machine learning, aiming to streamline the lifecycle of ML models from development to deployment and maintenance. Multisoft Systems' MLOps training program is meticulously designed to equip learners with the critical skills needed to manage and automate ML models efficiently.

## Module 1: Introduction to ML Ops

- ✓ Overview of ML Ops principles and importance
- ✓ Challenges in deploying and managing machine learning models
- ✓ Introduction to the course structure and objectives

## Module 2: Version Control with Git

- ✓ Basics of version control
- ✓ Introduction to Git and its importance in ML Ops
- ✓ Hands-on exercises on Git commands for managing machine learning models, datasets, and code

## Module 3: Containerization with Docker

- ✓ Introduction to Docker and containerization
- ✓ Dockerfile creation and container management
- ✓ Docker for packaging machine learning models

## Module 4: Orchestration with Kubernetes

- ✓ Overview of Kubernetes and container orchestration
- ✓ Deploying and scaling machine learning models with Kubernetes
- ✓ Hands-on exercises on Kubernetes deployment

## Module 5: CI/CD Pipelines

- ✓ Introduction to CI/CD and its importance in ML Ops
- ✓ Setting up CI/CD pipelines for machine learning models
- ✓ Automation of testing, building, and deployment processes

## Module 6: Monitoring and Logging

- ✓ Importance of monitoring and logging in ML Ops

- ✓ Implementing monitoring solutions for tracking model performance and health
- ✓ Hands-on exercises on monitoring tools

## **Module 7: Model Governance and Compliance**

- ✓ Understanding model governance and compliance
- ✓ Techniques for ensuring fairness, transparency, and accountability in machine learning models
- ✓ Case studies on model governance

## **Module 8: Scalability and Performance Optimization**

- ✓ Techniques for optimizing scalability and performance of machine learning models
- ✓ Hands-on exercises on performance optimization

## **Module 9: Infrastructure Provisioning with Terraform**

- ✓ Introduction to Infrastructure as Code (IaC)
- ✓ Provisioning and managing infrastructure using Terraform
- ✓ Hands-on exercises on Terraform for ML Ops

## **Module 10: Security Best Practices**

- ✓ Importance of security in ML Ops
- ✓ Security best practices for machine learning models
- ✓ Techniques for protecting against threats and vulnerabilities

## **Module 11: Real-World Case Studies**

- ✓ Presentation of real-world case studies and best practices from industry experts
- ✓ Discussion on challenges and solutions in implementing ML Ops in various organizations
- ✓ Q&A session