

# **MLOps Fundamentals 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 Fundamentals Training provided by Multisoft Systems offers a comprehensive introduction to the practices and tools necessary for the effective deployment, management, and continuous improvement of machine learning (ML) models.



#### Module 1: Why and when do we need MLOps

- ✓ Data Scientists' Pain Points
- ✓ Machine Learning Lifecycle
- ✓ MLOps Architecture and TensorFlow Extended Components

### Module 2: Understanding the Main Kubernetes Components

- ✓ Introduction
- ✓ Introduction to Containers
- ✓ Containers and Container Images
- ✓ Introduction to Kubernetes
- ✓ Introduction to Google Kubernetes Engine
- ✓ Compute Options Detail
- ✓ Kubernetes Concepts
- ✓ The Kubernetes Control Plane
- ✓ Google Kubernetes Engine Concepts
- ✓ Deployments
- ✓ Ways to Create Deployments
- ✓ Services and Scaling
- ✓ Updating Deployments
- ✓ Rolling Updates
- ✓ Blue-Green Deployments
- ✓ Canary Deployments
- ✓ Managing Deployments
- ✓ Jobs and CronJobs
- ✓ Parallel Jobs
- ✓ CronJobs

### **Module 3: Introduction to Containers**

✓ Containers and Container Images



- ✓ Introduction to Kubernetes
- ✓ Introduction to Google Kubernetes Engine
- ✓ Containers and Kubernetes in Google Cloud
- ✓ Kubernetes Concepts
- ✓ The Kubernetes Control Plane
- ✓ Google Kubernetes Engine Concepts
- ✓ Deployments
- ✓ Updating Deployments
- ✓ Jobs

#### Module 4: Introduction to AI Platform Pipelines

- ✓ Concepts
- $\checkmark$  When to use
- ✓ Ecosystem
- ✓ Getting Started with Google Cloud

#### Module 5: Training, Tuning and Serving on AI Platform

- ✓ System and concepts overview
- ✓ Create a reproducible dataset
- ✓ Implement a tunable model
- ✓ Build and push a training container
- $\checkmark~$  Train and tune the model
- ✓ Serve and query the model

#### Module 6: Kubeflow Pipelines on AI Platform

- ✓ System and concept overview
- ✓ Describing a Kubeflow Pipeline with KF DSL
- ✓ Pre-built components5m
- ✓ Lightweight Python Components
- ✓ Custom components



✓ Compile, upload and Run

### Module 7: CI/CD for Kubeflow Pipelines on AI Platform

- ✓ Concept Overview
- ✓ Cloud Build Builders
- ✓ Cloud Build Configuration
- ✓ Cloud Build Triggers