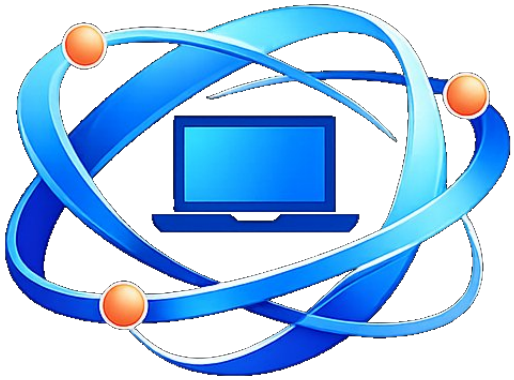

MFE-IT

Reference: 2B/EN/KDEV

Kubernetes Training Course

From Code to Cluster in Complete Autonomy

Duration: 4 Days | Hours: 28 h

Remote · Sessions guaranteed from 1 registrant · 60% hands-on practice

DESCRIPTION

Kubernetes is now at the heart of modern architectures, but is still too often seen as an administrator's tool. However, for a developer, knowing how to deploy, observe and correct their applications in a cluster is a decisive advantage.

This Kubernetes training for developers will enable you to adopt the right Dev+Kube reflexes: containerise your apps, write clear manifests, expose your services, interpret logs, use health probes and interact with monitoring tools — a gradual, targeted, developer-oriented skills upgrade.

LEARNING OBJECTIVES

By the end of this training course, participants will be able to:

- Understand the fundamentals of Kubernetes (Pods, Services, Deployments, Namespaces)
- Containerise an application with Docker and run it in Kubernetes
- Create readable and reusable YAML manifests
- Expose services (NodePort, Ingress) and manage access
- Debug deployments (logs, status, probes)
- Understand the impact of Kubernetes on the application lifecycle (rolling updates, scalability)

PREREQUISITES

- Good knowledge of application development (Node, Java, Python, etc.)
- Proficiency in Docker basics (images, containers, volumes)
- Comfortable with the command line (bash, CLI)

> *Because each participant is unique, a personalised interview is systematically organised in advance with our expert to design a training programme perfectly aligned with their objectives, level and professional challenges.*

TARGET AUDIENCE

Web, back-end and full-stack developers who want to deploy their projects without relying on Ops at every stage.

DETAILED PROGRAMME

> The training alternates between theoretical input and hands-on practice (approximately 60% of the time). Modules are built around practical exercises based on real-world business use cases.

Module 1 – Introduction to Kubernetes for developers

- Role of a cluster and essential components
- Pod, Service, Deployment from a developer's perspective
- Declarative YAML logic

Module 2 – Containerise and deploy your application

- Optimised Dockerfile patterns
- Creating simple manifests
- Local deployment with Minikube or K3s

Module 3 – Exposure and configuration of services

- NodePort vs LoadBalancer vs Ingress
- Route management and TLS basics
- Environment configuration with ConfigMap and Secret

Module 4 – Observability and debugging

- Logs with kubectl and aggregated logs
- Health probes (readiness, liveness, startup)
- Useful commands: top, describe, logs, exec

Module 5 – Complete use case

- Full deployment of a multi-service application
- Horizontal scaling and rolling updates
- Rollbacks and incident playbooks

TEACHING METHODS

Format and Delivery

The training is delivered remotely via an interactive virtual classroom. It can also be delivered on-site, with content customised to match the needs of your professional project. The theory/practice split is approximately 40%/60%.

MFE-IT Ultra-Personalised Format

Each session accommodates between 1 and 3 participants, ensuring highly individualised support. A preliminary interview allows us to tailor the content to each participant's profile. Inter-company sessions are guaranteed from just 1 registrant (except in cases of force majeure).

Skills Assessment

Throughout the training, the trainer assesses participant progress through multiple-choice questions, role-playing exercises and hands-on work. At the end, a certificate of achievement is issued to each participant.

Post-Training Support

For one month following the training, each participant can contact MFE-IT trainers with questions about implementing acquired knowledge. A response is provided by email or telephone within 48 working hours.

Accessibility

MFE-IT is committed to welcoming people with disabilities. Contact: contact@mfe-it.com.

PRACTICAL INFORMATION

Trainer Resources

- Structured demonstrations aligned with the detailed programme
- Exercise briefs and solutions throughout the training
- A ready-to-use technical environment for practical workshops
- Trainer validation of acquired knowledge at the end of each workshop
- Digital reference documents

Certification and Validation

At the end of the training, a certificate is sent by email specifying the objectives, nature, duration and assessment results. A completion certificate can also be provided on request.

Benefits for Participants

- Train from your workplace or home, with no travel required
- Benefit from an expert trainer-consultant on the subject
- Enjoy an ultra-personalised format (1 to 3 participants)
- Continue training even in the event of unforeseen circumstances

Benefits for the Organisation

- Optimise the training budget by reducing travel and accommodation costs
- Offer quality training to all employees, regardless of location
- Reduce absence time linked to travel
- Support team upskilling in all contexts