# Fast Lane

# Architecting on Kubernetes (ARKU)

**ID** ARKU  **Price** CHF 2,990.—(excl. VAT)  **Duration** 3 days

## Who should attend

This course is designed for:

- Solutions Architects
- Software Developers
- Operations Engineers
- DevOps Engineers
- Technical Managers

## Prerequisites

This course is technical in nature. We examine Kubernetes from multiple perspectives: top to bottom, inside and out. We use the command line and write YAML files. While no one will be left behind, participants should bring motivation and curiosity.

Expected knowledge includes:

- Linux basics
- Basic shell commands
- File editing on the command line
- Understanding of virtualization
- Web application architecture fundamentals

## Course Objectives

In this course, you will learn to:

- Make architectural decisions based on Kubernetes architectural principles and paradigms
- Leverage Kubernetes features to make your applications scalable, reliable, and highly available
- Leverage the Kubernetes infrastructure to enable greater flexibility and resiliency of your overall solution
- Adopt security best practices for their applications and clusters.
- Deploy applications on clusters.

## Course Content

### Day 1

- Introduction to and History of Kubernetes
- 10,000 Feet View of Kubernetes
- Crash Course: Docker Fundamentals
- Lab 1: Deploying the First Container
- Applications on Kubernetes (Pods, Services, Deployments)
- Interfacing with Kubernetes with kubectl
- Lab 2: Deploying a Real-World Application

### Day 2

- Guide to Kubernetes Cluster Infrastructure
- Security with Secrets, RBAC and Namespaces
- Networking Overview
- Lab 3: Securing the Application
- Understanding Ingress
- Storage Options
- Stateful Sets
- Lab 4: Databases on Kubernetes

### Day 3

- High-Availability and Desaster Recovery
- Elasticity and Scaling
- Cloud Options
- Lab 5: Spinning up a Cluster on Your Favorite Cloud Provider
- Using Helm
- Course Wrap-Up

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**Training Centres worldwide**





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