

# Architecting on OpenShift (AROS)

**ID** AROS **Price** on request **Duration** 4 days

## Who should attend

This course is intended for:

- Solutions architects
- Software developers
- Technical managers

## Course Objectives

In this course, you will learn to:

- Use and create containerized applications.
- Understand the difference between OpenShift and Kubernetes.
- Make architectural decisions based on OpenShift architectural principles and paradigms.
- Leverage OpenShift features to make your applications scalable, reliable, and highly available.
- Leverage the OpenShift 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

- Container Fundamentals
- Docker and Podman
- Lab 1: Running Containers
- Container Lifecycle
- Building Container Images
- Container Registries
- Image Scanning
- Lab 2: Building a Containerized Application

### Day 2

- Introduction to Kubernetes
- OpenShift vs. Kubernetes
- OpenShift Big Picture
- OpenShift Projects

- Lab 3: Working with the OpenShift Web Console
- Applications on OpenShift (Pods, Services, Deployments)
- Interfacing with OpenShift with oc

### Day 3

- Ingress & Egress
- Multi-Tier Apps and Microservices on OpenShift
- Lab 4: Deploying a Microservices Application
- Zero-Downtime Deployments
- Canary & A/B Testing
- Application Elasticity & Scaling
- Application High Availability
- Lab 5: Troubleshooting Apps

### Day 4

- Configuration and Secrets
- Using Helm & Kustomize
- Guide to OpenShift Cluster Infrastructure
- Introduction to Cluster Operators
- Networking Overview
- Storage & Persistence
- Stateful Sets
- DB Schema Evolution for CI/CD
- Lab 6: Databases on OpenShift

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## Training Centres worldwide



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