Reference: AZ-2003

Azure Container Apps AZ-2003 Training Course

Deploy and Manage Cloud-Native Applications on Azure

Duration: 1 Day | Hours: 7 h

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

DESCRIPTION

This Azure Container Apps training teaches you how to create, configure and supervise containerised applications without managing the underlying infrastructure. You will learn how to deploy microservices on Azure Container Apps, configure auto-scaling, manage traffic between revisions, and secure your applications using managed identities and Dapr.

The programme follows the Microsoft AZ-2003 reference and covers the full lifecycle of a cloud-native workload — from a Docker image to a production-ready, scalable, observable service.

LEARNING OBJECTIVES

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

- Understand the principles of containerised cloud-native applications and their value in modern architectures
- Configure Azure Container Apps: environments, revisions, scaling, ingress and secrets
- Deploy containerised applications from Azure Container Registry or Docker Hub
- Implement communication between microservices using Dapr and Azure Service Bus
- Set up continuous deployment pipelines from GitHub Actions or Azure Pipelines

PREREQUISITES

- Basic understanding of cloud computing (virtualisation, scalability, provisioning)
- Knowledge of containers (Docker) and how they work
- Familiarity with Azure (portal, services, CLI) and basic CI/CD concepts

> *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

- Cloud developers, DevOps engineers and cloud architects wishing to master containerised application deployment on Azure
- System and network administrators involved in CI/CD pipelines
- Technical managers or architects evaluating Azure Container Apps for their infrastructure

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 cloud-native and Container Apps

- Cloud-native principles and 12-factor patterns
- Container Apps positioning vs AKS and App Service
- The underlying stack: Kubernetes, KEDA, Dapr, Envoy

Module 2 – Configuring Container Apps environments and revisions

- Workspace, environment and Log Analytics integration
- Revisions, traffic splitting and canary patterns
- Configuration management

Module 3 – Deploying containers from ACR or Docker Hub

- Container image management and tagging strategies
- Pulling from Azure Container Registry with managed identities
- First deployment via Azure CLI and Azure Portal

Module 4 – Scaling, ingress, secrets and managed identities

- Auto-scaling rules with KEDA (HTTP, queue, custom metrics)
- Ingress configuration and external/internal endpoints
- Secrets and Managed Identity access to Azure resources

Module 5 – Microservices communication with Dapr

- Dapr building blocks: invocation, pub/sub, state, bindings
- Integration with Azure Service Bus and Storage
- Designing resilient service-to-service flows

Module 6 – CI/CD with GitHub Actions and Azure Pipelines

- Build-and-deploy workflows for Container Apps
- Blue/green and revision-based deployment strategies
- Rollback patterns and approval gates

Module 7 – Comparison with AKS and decision criteria

- When to choose Container Apps vs AKS vs App Service
- Cost optimisation and scale-to-zero patterns
- Production readiness checklist

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