

AZ-2003: Deploy cloud-native apps using Azure Container Apps Course

Course Duration: 8 Hours

Course code: AZ-2003

1. Course Overview

This one-day instructor-led training equips you with the skills to build, deploy, manage, and scale containerized, cloud-native applications using **Azure Container Apps, Azure Container Registry, and Azure Pipelines**. Through a blend of theory, demos, and hands-on labs, you'll dive into secure CI/CD workflows, revision management, scaling strategies, and traffic routing for production-grade container apps

2. What you'll learn?

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

- Understand cloud-native application principles and deployment patterns on Azure.
- Configure and secure Azure Container Registry and manage container images.
- Create and configure Azure Container Apps environments with ingress, secrets, and managed identities.
- Implement CI/CD workflows using Azure DevOps pipelines for automated deployments.
- Apply scaling strategies, manage revisions, and implement traffic-splitting techniques.
- Perform an end-to-end deployment of a secure, scalable containerized application.

3. Target Audience

This course is ideal for:

- Developers who want to deploy and manage containerized applications on Azure.
- DevOps engineers responsible for implementing automated deployment pipelines.
- Technical leads managing microservices-based application architectures.
- IT professionals seeking to enhance their skills in container management and Azure cloud services.

4. Pre-Requisites

Learners should have:

- Understanding of basic cloud computing concepts.
- Familiarity with containers and how they differ from virtual machines.
- Basic knowledge of container orchestration concepts.
- Experience with Azure services such as Azure Container Registry, Kubernetes Service, or Container Apps.
- Awareness of CI/CD processes, preferably with Azure DevOps or similar tools.
- Basic networking knowledge.

5. Course content

Module 1: Introduction to Cloud-Native Applications and Azure Container Apps

- Overview of cloud-native architectures.
- Key benefits of containerized deployments.
- Introduction to Azure Container Apps service.

Module 2: Working with Azure Container Registry

- Creating and managing container registries.
- Pushing and pulling container images.
- Securing registries with authentication and permissions.

Module 3: Deploying and Configuring Azure Container Apps

- Creating container app environments.
- Configuring ingress, secrets, and managed identities.
- Setting environment variables and storage mounts.

Module 4: Implementing Continuous Deployment

- Introduction to CI/CD for containerized workloads.
- Setting up Azure DevOps pipelines for container apps.
- Managing pipeline agents and secrets.

Module 5: Scaling and Managing Container Apps

- Scaling container apps automatically and manually.
- Managing application revisions.
- Implementing traffic-splitting strategies.

Module 6: Guided Project – End-to-End Deployment

- Setting up a container registry.
- Deploying an application to Azure Container Apps.
- Configuring CI/CD, scaling, and revisions in a real-world scenario.