

**Deploy Cloud-Native Apps using Azure Container Apps (AZ-2003)**

**Course Number:** MOC-AZ-2003
**Duration:** 1 day

**Overview**

This Microsoft Official Applied Skills course, Deploy cloud-native apps using Azure Container Apps (AZ-2003), teaches learners how to configure a secure deployment solution for cloud-native apps. Learners discover how to build, deploy, scale, and manage containerized cloud-native apps using Azure Container Apps, Azure Container Registry, and Azure Pipelines.

**Prerequisites**

* Basic understanding of cloud computing concepts: Familiarity with cloud computing fundamentals, such as virtualization, scalability, and on-demand resource provisioning.
* Knowledge of containers: Understanding the concept of containers, their benefits, and how they differ from traditional apps and virtual machines.
* Familiarity with container orchestration: Basic understanding of container orchestration platforms like Kubernetes and their role in managing containerized applications.
* Experience with Azure: Some familiarity with Microsoft Azure and its core container services, such as Azure Container Registry, Azure Kubernetes Service, and Azure Container Apps.
* Experience with deployments: Some familiarity with Azure DevOps or similar CI/CD tools for application deployment.
* Experience with networks: Some familiarity with networking concepts and Azure Virtual Networks.

**Materials**

All Microsoft training students receive Microsoft official courseware.

For all Microsoft Official Courses taught in their entirety that have a corresponding certification exam, an exam voucher is included for each participant.

**Software Needed on Each Student PC**

Attendees will not need to install any software on their computers for this class. The class will be conducted in a remote environment that Accelebrate will provide; students will only need a local computer with a web browser and a stable Internet connection. Any recent version of Microsoft Edge, Mozilla Firefox, or Google Chrome will be fine.

**Objectives**

* Understand the concepts and advantages of cloud-native applications and containerized deployments
* Explore the various deployment options for containerized applications on Azure
* Learn how to set up and configure an Azure Container Registry for deploying containerized applications
* Gain knowledge on how to create, configure, scale, and manage container apps using Azure Container Apps
* Understand the process of continuous deployment for container apps using Azure DevOps and Azure Pipelines
* Learn how to manage revisions, application lifecycle, scaling, and traffic splitting in Azure Container Apps
* Gain hands-on experience in deploying and managing a container app using Azure Container Apps, Azure Container Registry, Azure Pipelines, and other relevant tools

**Outline**

* Get Started with Cloud Native Apps and Containerized Deployments
	+ Introduction to cloud-native applications
	+ Benefits of containerized deployments
	+ Options for containerized deployments on Azure
	+ Features of Azure Container Apps
* Configure Azure Container Registry for Container App Deployments
	+ Overview of the Azure Container Registry service
	+ Creation of a container registry instance
	+ Registry operations for image management
	+ Authentication with managed identity
	+ Azure Container Registry roles and permissions
	+ Secure communications using virtual networks
* Configure a Container App in Azure Container Apps
	+ Features and capabilities of Azure Container Apps
	+ Creation, configuration, scaling, and management of container apps
	+ Managed identities, ingress, secrets management, storage mounts, and cloud service connections in Azure Container Apps
* Configure Continuous Deployment for Container Apps
	+ Deployment options for containerized apps
	+ Features of Azure DevOps and Azure Pipelines
	+ Configuration and deployment tasks in Azure Pipelines
	+ Agents and agent pools for pipelines
	+ Environment and secret variables for pipelines
* Scale and Manage Deployed Container Apps
	+ Revisions in Azure Container Apps
	+ Application lifecycle management in Azure Container Apps
	+ Scaling options in Azure Container Apps
	+ Ingress settings for traffic-splitting and blue-green deployments
* Guided Project - Deploy and Manage a Container App using Azure Container Apps
	+ End-to-end process of building, deploying, and managing containerized applications
	+ Use of Azure Container Apps, Azure Container Registry, Azure Pipelines, and other tools