

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

Course Description

Develop the skills necessary to configure a secure deployment solution for cloud-native apps. Learn how to build, deploy, scale, and manage containerized cloud-native apps using Azure Container Apps, Azure Container Registry, and Azure Pipeline.

Course Duration

1 day

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.

Course Outline

1 - Get started with cloud native apps and containerized deployments

- Examine cloud-native apps
- Examine deployment options for cloud-native apps
- Review an Azure Container Apps solution architecture and resources
- Module assessment

2 - Configure Azure Container Registry for container app deployments

- Review the Azure Container Registry service
- Create a container registry instance in the Azure portal
- Examine registry operations for image management
- Examine authentication with managed identity
- Examine Azure Container Registry roles and permissions
- Examine secure communications using virtual networks
- Module assessment

3 - Configure a container app in Azure Container Apps

- Review the Azure Container Apps service
- Examine Azure Container Apps containers and containers registries
- Create a container app and container app environment
- Examine managed identities in Azure Container Apps
- Examine ingress in Azure Container Apps

- Examine the management of secrets in Azure Container Apps
- Examine the storage mounts in Azure Container Apps
- Examine cloud service connections in Azure Container Apps
- Module assessment

4 - Configure continuous deployment for container apps

- Review continuous deployment options for container apps
- Examine Azure DevOps and Azure Pipelines
- Examine Azure Pipeline configuration and deployment tasks
- Examine agents and agent pools for pipelines
- Examine environment and secret variables for pipelines
- Module assessment

5 - Scale and manage deployed container apps

- Examine revisions in Azure Container Apps
- Examine application lifecycle management in Azure Container Apps
- Examine scaling options in Azure Container Apps
- Examine ingress settings for traffic-splitting and blue-green deployments
- Module assessment

Who Should Attend

- DevOps Engineer