

AZ 2003- Deploy Cloud-Native Apps Using Azure Container Apps



Days: 1

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.

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 Pipelines.

OUTLINE:

LESSON 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

LESSON 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

LESSON 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

LESSON 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

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LESSON 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

LESSON 6 - GUIDED PROJECT - DEPLOY AND MANAGE A CONTAINER APP USING AZURE CONTAINER APPS

- Prepare your app deployment tools and resources
- Module assessment