NETCAMPUS GROUP
unlocking potential

APPLIED SKILLS

Deploy cloud-native apps using Azure Container Apps

Days	SKILL LEVEL	DELIVERY METHOD	Role	TECHNOLOGY
1	Intermediate	VILT/ILT	DevOps	Azure

Course Overview

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.

Tasks performed.

- Configure a secure connection between an Azure Container Registry and an ACA
- Create and configure a container app in Azure Container Apps
- Configure continuous integration by using Azure Pipelines
- Scale a deployed app in Azure Container Apps
- Manage revisions in Azure Container Apps

Prerequisites

Before attending this course, delegates must know:

- 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.

Prepare for the assessment.

Module 1: Get started with cloud native apps and containerized deployments.

This module provides an introduction to cloud-native applications, the benefits of containerized deployments, the options for containerized deployments on the Azure platform, and the features of Azure Container Apps.

Learning objectives

- Examine the concept of cloud-native applications.
- Explore the benefits and challenges of containerized deployments.
- Explore different deployment options and strategies for cloud-native applications.
- Examine best practices for managing and scaling containerized deployments in Azure.

Module 2: Configure Azure Container Registry for container app deployments.

This module teaching users how to set up and configure an Azure Container Registry for deploying containerized applications to Azure Container Apps.

Learning objectives

- Examine Azure Container Registry and its role in container app deployments.
- Learn how to create and configure an Azure Container Registry.
- Examine the process of pushing container images to Azure Container Registry.
- Explore different authentication methods and security features for Azure Container Registry.

Module 3: Configure a container app in Azure Container Apps

This module examines the features and capabilities of Azure Container Apps, and then focuses on how to create, configure, scale, and manage container apps using Azure Container Apps.

Learning objectives

- Examine the features and capabilities of Azure Container Apps.
- Learn how to create and configure an Azure Container App and Container Apps Environment using the Azure portal.
- Examine how to define and manage environment variables for Azure Container Apps.

- Learn how to configure ingress options for Azure Container Apps.
- Explore the process of scaling and managing instances of Azure Container Apps.
- Understand the security considerations and best practices for configuring Azure Container Apps.

Module 4: Configure continuous deployment for container apps.

This module explores deployment options for containerized apps. It reviews the features of Azure DevOps and examines automated deployments to Container Apps using Azure Pipelines.

Learning objectives

- Examine deployment options and strategies for containerized applications.
- Examine the features and capabilities of Azure DevOps and Azure Pipelines.
- Learn how to set up automated build and deployment pipelines for container apps using Azure DevOps.
- Examine how to configure agent pools and secret variables for pipelines.

Module 5: Scale and manage deployed container apps.

This module reviews the concept of revisions in Azure Container Apps and examines options for application lifecycle management. It also examines options for scaling and traffic splitting using Azure Container Apps.

Learning objectives

- Examine the concept of revisions in Azure Container Apps.
- Examine the options for application lifecycle management in Azure Container Apps.
- Learn about the scaling options available for Azure Container Apps.
- Learn about the ingress settings and traffic-splitting for Azure Container Apps.

Module 6: Guided project - Deploy and manage a container app using Azure Container Apps

This module guides learners through the end-to-end process of building, deploying, and managing containerized applications using Azure Container Apps, Azure Container Registry, Azure Pipelines, and other tools and resources.

Learning objectives

- Configure Azure Container Registry, Azure Container Apps, and other resources required for an app deployment scenario.
- Configure Azure Pipelines for a continuous integration scenario.
- Configure Azure Container Apps for scaling and revision management.

Take the assessment.

This assessment will use an interactive lab to evaluate your performance. It will take a few minutes to load the lab, and

you may do other activities while it loads. After you launch the lab, you will need to wait 72 hours to launch it again. Your mouse movements and text entered during the lab will be recorded for quality purposes. Learn more.

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