



Develop Azure Infrastructure as a Service Compute Solutions

AZ-203T01-A; 1 Day; Instructor-led

Course Description

In this course students will gain the knowledge and skills needed to implement Azure IaaS services and features in their development solutions. The course covers provisioning virtual machines, using Batch Service to deploy/maintain resources, and how to create containerized solutions by using Azure Kubernetes Service.

Course Objectives

After completing this course, students will be able to:

- Provision virtual machines
- Use Batch Service to deploy/maintain resources
- Create containerized solutions by using Azure Kubernetes Service

Audience

This course is intended for developers. Students in this course are interested in Azure development or in passing the Microsoft Azure Developer Associate certification exam.

Prerequisites

This course requires that you meet the following prerequisites:

- 1-2 years of experience as a developer
- Know how to code
- Have fundamental knowledge of Azure
- Some experience with PowerShell or Azure CLI and working in the Azure portal
- Some experience with at least one Azure-supported programming language
- C# .NET

Course Outline

Module 1: Implement solutions that use virtual machines

Students will learn how to properly plan for VM deployment. It covers VM creation by using the Azure Portal, PowerShell, and through code. It also covers creating and using ARM templates for repeatable deployments and how to use Azure Disk Encryption to secure information on the VM.

Lessons

- Provision VMs
- Create ARM templates
- Configure Azure Disk Encryption for VMs

After completing this module, students will be able to:

- Learn how to create and deploy virtual machines by using the Azure Portal, PowerShell, and through code
- Learn how to create and deploy Azure Resource Manager templates by using the Azure Portal and Visual Studio
- Understand the different encryption options and learn how to encrypt existing and new deployments

Module 2: Implement batch jobs by using Azure Batch Services

Azure Batch creates and manages a pool of compute nodes (virtual machines), installs the applications you want to run, and schedules jobs to run on the nodes.

Lessons

- Azure Batch overview
- Run a batch job by using the Azure CLI and Azure Portal
- Run batch jobs by using code
- Manage batch jobs by using the Batch Service API

After completing this module, students will be able to:

- Understand how the Azure Batch service works
- Learn how to create and run batch jobs by using the Azure CLI
- Learn how to create and run batch jobs by using code
- Learn how to use the Azure Batch Service API to manage jobs

Module 3: Create containerized solutions

You can build and run modern, portable, microservices-based applications that benefit from Kubernetes orchestrating and managing the availability of those application components. Kubernetes supports both stateless and stateful applications as teams progress through the adoption of microservices-based applications.

Lessons

- Create an Azure Managed Kubernetes Service (AKS) cluster
- Create container images for solutions
- Publish an image to the Azure Container Registry
- Run containers by using Azure Container Instance or AKS

After completing this module, students will be able to:

- Learn core concepts for Azure Kubernetes Service (AKS)
- Learn how to deploy AKS clusters
- Publish an image to the Azure Container Registry
- Learn about Azure Container Instances and how to deploy to them