

32 HORAS

AUDIENCE

These courses are for experienced programmers who want to develop and host solutions in Azure. Learners should have some experience with Azure and must be able to program in at least one Azure-supported language. These courses focus on C#, Node.js, Azure CLI, Azure PowerShell, and JavaScript.

AZ-200T01-A: Select the Appropriate Azure Technology Development Solution

INTRODUCTION

This course is part of a series of four courses to help you prepare for Microsoft's Azure Developer certification exam AZ-200: Develop Core Microsoft Azure Cloud Solutions. These courses are designed for developers who already know how to code in at least one of the Azure-supported languages.

The coursework covers Azure architecture, design and connectivity patterns, and choosing the right storage solution for your development needs.

AT COURSE COMPLETION

After completing this course, students will be able to:

- Learn common Azure application design and connectivity patterns
- Measuring and planning throughput, and data access structure
- Learn about Azure networking topologies

COURSE OUTLINE

Module 1: Select an appropriate compute solution

- Take advantage of appropriate design and connectivity patterns

Module 2: Design for hybrid technologies

- Virtual networking
- Hybrid networking

Module 3: Select an appropriate storage solution

- Address durability of data
- Caching
- Measure and plan throughput and structure of data access

AZ-200T02-A: Develop for Azure Storage

INTRODUCTION

This course is part of a series of four courses to help you prepare for Microsoft's Azure Developer certification exam AZ-200: Develop Core Microsoft Azure Cloud Solutions. These courses are designed for developers who already know how to code in at least one of the Azure-supported languages.

The coursework covers developing solutions leveraging Azure Storage options including: Cosmos DB, Azure Storage tables, file storage, Blob, relational databases, and caching and content delivery networks.

AT COURSE COMPLETION

After completing this course, students will be able to:

- Connect to storage in Azure
- Design and implement policies to Tables
- Create, read, update, and delete tables by using code
- Develop for Azure Redis cache and content delivery networks
- Develop solutions that use blob storage

COURSE OUTLINE

Module 1: Develop solutions that use Azure Storage tables

- Connect to Azure Storage
- Design and Implement Storage tables
- Query a table by using code

Module 2: Develop solutions that use Azure Cosmos DB storage Azure Cosmos DB

- Choose the appropriate API for Cosmos DB storage
- Manage containers and items in Cosmos DB storage
- Create, read, update, and delete documents in Azure Cosmos DB by using code

Module 3: Develop solutions that use file storage

- Implement file shares for an Azure storage account
- Migrating content to and between file shares

Module 4: Develop solutions that use a relational database

- Create, read, update, and delete database tables by using code
- Implement SQL Dynamic Data Masking

Module 5: Develop solutions that use Microsoft Azure Blob storage

- Create a Shared Access Signature for a blob
- Asynchronously move items in Blob storage between containers
- Set Blob storage container properties in metadata

Module 6: Develop for caching and content delivery solutions

- Azure Redis Cache
- Develop for storage on CDNs

AZ-200T03-A: Develop Azure Platform as a Service Solutions

INTRODUCTION

This course is part of a series of four courses to help you prepare for Microsoft's Azure Developer certification exam AZ-200: Develop Core Microsoft Azure Cloud Solutions. These courses are designed for developers who already know how to code in at least one of the Azure-supported languages.

The coursework covers solutions for: creating App Service Web Apps; notification and offline sync for mobile apps; Service Fabric; serverless Azure Functions; managing bulk operations through the Batch Service API; Azure Kubernetes Service; and Azure Media Services.

AT COURSE COMPLETION

After completing this course, students will be able to:

- Create an Azure app service web app by using Azure CLI, Powershell, and other tools
- Create documentation for the API by using open source and other tools
- Add push notifications and enable offline sync for mobile apps
- Develop stateful and stateless apps on Service Fabric
- Create Azure functions including bindings and triggers
- Define and run scheduled bulk operations
- Create an Azure Container Service (ACS/AKS) cluster using Azure CLI and Azure Portal
- Develop media solutions that use AI services

COURSE OUTLINE

Module 1: Creating App Service Web Apps

- Introduction to Web Apps
- Using shell commands to create App Service Web Apps
- Creating background tasks using WebJobs in Azure App Service
- Using Swagger to document an API

Module 2: Creating mobile apps

- Getting started with mobile apps in App Service
- Enabling push notifications for your app
- Enabling offline sync for your app

Module 3: Creating an app service Logic App

- Overview of Azure Logic Apps
- Creating a Logic App
- Creating custom connectors for Logic Apps
- Creating a custom template for a Logic App

Module 4: Creating an app or service that runs on Service Fabric

- Understanding Azure Service Fabric
- Creating a Reliable Service
- Creating a Reliable Actors app
- Working with Reliable Collections

Module 5: Creating Azure Functions

- Azure Functions overview
- Develop Azure Functions using Visual Studio
- Triggers and bindings

Module 6: Scheduling bulk operations

- Azure Batch overview
- Running Batch jobs
- Using the .NET Batch Management client library

Module 7: Create solutions that use Azure Kubernetes Service

- Creating an Azure Kubernetes Service cluster
- Azure Container Registry
- Azure Container Instances

Module 8: Developing apps for Azure Media Services

- Introduction to Azure Media Services
- Azure Media Services v3 concepts
- Upload, encode, and stream with .NET
- Analyze your video with .NET

AZ-200T04-A: Implement Security in Azure Development Solutions

INTRODUCTION

This course is part of a series of four courses to help you prepare for Microsoft's Azure Developer certification exam AZ-200: Develop Core Microsoft Azure Cloud Solutions. These courses are designed for developers who already know how to code in at least one of the Azure-supported languages.

The coursework covers how authentication and authorization work in Azure, and how to implement secure data solutions with: encryption; Azure Key Vault; and SSL and TLS communications.

AT COURSE COMPLETION

After completing this course, students will be able to:

- Learn about the different authentication options, including multi-factor, available in Azure and how they operate
- Learn about implementing access control in your solution including claims- and role-based authorization
- Implement secure data solutions by using encryption, Azure confidential computing, and SSL/TLS communications
- Manage cryptographic keys in Azure Key Vault

COURSE OUTLINE

Module 1: Implementing authentication

- Implement authentication in applications
- Implement multi-factor authentication

Module 2: Implementing access control

- Claims-based authorization
- Role-based access control (RBAC) authorization

Module 3: Implementing secure data solutions

- Encryption options
- End-to-end encryption
- Implement Azure confidential computing
- Manage cryptographic keys in Azure Key Vault