

# AZ-203 Developing Solutions for Microsoft Azure

## Course Overview

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This is a 5-day class

This six-MOC packaged set aligned to Azure Exam: Developing Solutions for Microsoft Azure contains courseware that helps prepare students for Exams AZ-203. Passing this exam is required to earn the Developing Solutions for Microsoft Azure certification.

## Who Should Attend

Students that are interested in Azure development or in passing the Microsoft Azure Developer Associate certification exam.

## Course Objectives

Please refer to Overview

## Course Outline

### 1 IMPLEMENT SOLUTIONS THAT USE VIRTUAL MACHINES

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

### 2 IMPLEMENT BATCH JOBS BY USING AZURE BATCH SERVICES

- 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

### 3 CREATE CONTAINERIZED SOLUTIONS

- 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

### 4 CREATE APP SERVICE WEB APPS

- Azure App Service core concepts
- Creating an Azure App Service web app
- Creating background tasks by using Web Jobs in Azure App Service

### 5 CREATING AZURE APP SERVICE MOBILE APPS

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

### 6 CREATE AZURE APP SERVICE API APPS

- Creating APIs
- Using Swagger to document an API

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## 7 IMPLEMENT AZURE FUNCTIONS

Azure Functions overview  
Develop Azure Functions using Visual Studio  
Implement durable functions

## 8 DEVELOP SOLUTIONS THAT USE AZURE TABLE STORAGE

Azure Table storage overview  
Authorization in Table storage  
Table service REST API

## 9 DEVELOP SOLUTIONS THAT USE AZURE COSMOS DB STORAGE

Azure Cosmos DB overview  
Managing containers and items  
Create and update documents by using code

## 10 DEVELOP SOLUTIONS THAT USE A RELATIONAL DATABASE

Azure SQL overview  
Create, read, update, and delete database tables by using code

## 11 DEVELOP SOLUTIONS THAT USE MICROSOFT AZURE BLOB STORAGE

Azure Blob storage overview  
Working with Azure Blob storage

## 12 IMPLEMENT AUTHENTICATION

Microsoft identity platform  
Implement OAuth2 authentication  
Implement managed identities for Azure resources  
Implement authentication by using certificates, forms-based authentication, or tokens  
Implement multi-factor authentication

## 13 IMPLEMENT ACCESS CONTROL

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

## 14 IMPLEMENT SECURE DATA SOLUTIONS

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

## 15 INTRODUCTION TO AZURE MONITOR

Overview of Azure Monitor

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## 16 DEVELOP CODE TO SUPPORT SCALABILITY OF APPS AND SERVICES

Implement autoscale  
Implement code that addresses singleton application instances  
Implement code that handles transient faults

## 17 INSTRUMENT SOLUTIONS TO SUPPORT MONITORING AND LOGGING

Configure instrumentation in an app or server by using Application Insights  
Analyze and troubleshoot solutions by using Azure Monitor

## 18 INTEGRATE CACHING AND CONTENT DELIVERY WITHIN SOLUTIONS

Azure Cache for Redis  
Develop for storage on CDNs

## 19 DEVELOP AN APP SERVICE LOGIC APP

Azure Logic Apps overview  
Create Logic Apps by using Visual Studio  
Create custom connectors for Logic Apps  
Create custom templates for Logic Apps

## 20 INTEGRATE AZURE SEARCH WITHIN SOLUTIONS

Create and query an Azure Search Index  
Full text search in Azure Search

## 21 API MANAGEMENT

Introduction to the API Management service  
Securing your APIs  
Defining API policies

## 22 DEVELOP EVENT-BASED SOLUTIONS

Implement solutions that use Azure Event Grid  
Implement solutions that use Azure Event Hubs  
Implement solutions that use Azure Notification Hubs

## 23 DEVELOP MESSAGE-BASED SOLUTIONS

Implement solutions that use Azure Service Bus  
Implement solutions that use Azure Queue Storage queues