

## **AZ-203: Developing Solutions for Microsoft Azure**

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### **AZ-203T01: Develop Azure Infrastructure as a Service compute solutions**

#### **Module 1: Implement solutions that use virtual machines**

##### **Lessons**

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

#### **Module 2: Implement batch jobs by using Azure Batch**

##### **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

#### **Module 3: Create containerized**

##### **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

### **AZ-203T02: Develop Azure Platform as a Service compute solutions**

#### **Module 1: Create App Service web**

##### **Lessons**

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

#### **Module 2: Creating Azure App Service mobile**

##### **Lessons**

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

**Module 3: Create Azure App Service API Lessons**

- Creating APIs
- Using Swagger to document an API

**Module 4: Implement Azure Lessons**

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

**AZ-203T03: Develop for Azure storage**

**Module 1: Develop solutions that use Azure Table Lessons**

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

**Module 2: Develop solutions that use Azure Cosmos DB storage** This module covers Azure Cosmos DB storage. It instructs students on how it works, how to manage containers and items, and create and update documents by using code. **Lessons**

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

**Module 3: Develop solutions that use a relational Lessons**

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

**Module 4: Develop solutions that use Microsoft Azure Blob Lessons**

- Azure Blob storage overview
- Working with Azure Blob storage

**AZ-203T04: Implement Azure security**

**Module 1: Implement Lessons**

- 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

## **Module 2: Implement access control**

### **Lessons**

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

## **Module 3: Implement secure data**

### **Lessons**

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

## **AZ-203T05: Monitor, troubleshoot, and optimize Azure solutions**

### **Module 1: Introduction to Azure Monitor**

#### **Lessons**

- Overview of Azure Monitor

### **Module 2: Develop code to support scalability of apps and services**

#### **Lessons**

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

### **Module 3: Instrument solutions to support monitoring and logging**

#### **Lessons**

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

### **Module 4: Integrate caching and content delivery within solutions**

#### **Lessons**

- Azure Cache for Redis
- Develop for storage on CDNs

## **AZ-203 T06: Connect to and consume Azure, and third-party, services**

### **Module 1: Develop an App Service Logic**

#### **Lessons**

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

## **Module 2: Integrate Azure Search within solutions**

### **Lessons**

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

## **Module 3: API Management**

### **Lessons**

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

## **Module 4: Develop event-based solutions**

### **Lessons**

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

## **Module 5: Develop message-based solutions**

### **Lessons**

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