




also learn how to create Cosmos DB accounts and create databases, containers, and items by using a mix of the Azure Portal and the .NET SDK. 

### Lessons

- Azure Cosmos DB overview
- Azure Cosmos DB data structure
- Working with Azure Cosmos DB resources and data

### Module 5: Implement IaaS solutions

This module instructs students on how to use create VMs and container images to use in their solutions. It covers creating VMs, using ARM templates to automate resource deployment, create and manage Docker images, publishing an image to the Azure Container Registry, and running a container in Azure Container Instances.

### Lessons

- Provisioning VMs in Azure
- Create and deploy ARM templates
- Create container images for solutions
- Publish a container image to Azure Container Registry
- Create and run container images in Azure Container Instances

### Module 6: Implement user authentication and authorization

Students will learn how to leverage the Microsoft Identity Platform v2.0 to manage authentication and access to resources. Students will also learn how to use the Microsoft Authentication Library and Microsoft Graph to authenticate a user and retrieve information stored in Azure, and how and when to use Shared Access Signatures.

### Lessons

- Microsoft Identity Platform v2.0
- Authentication using the Microsoft Authentication Library
- Using Microsoft Graph
- Authorizing data operations in Azure Storage

### Module 7: Implement secure cloud solutions

This module covers how to secure the information (keys, secrets, certificates) an application uses to access resources. It also covers securing application configuration information.

### Lessons

- Manage keys, secrets, and certificates by using the KeyVault API
- Implement Managed Identities for Azure resources
- Secure app configuration data by using Azure App Configuration

### Module 8: Implement API Management

Students will learn how to publish APIs, create policies to manage information shared through the API, and to manage access to their APIs by using the Azure API Management service.

### Lessons

- API Management overview
- Defining policies for APIs
- Securing your APIs

### Module 9: Develop App Service Logic Apps

This module teaches students how to use Azure Logic Apps to schedule, automate, and orchestrate

tasks, business processes, workflows, and services across enterprises or organizations.

### Lessons

- Azure Logic Apps overview
- Creating custom connectors for Logic Apps

### Module 10: Develop event-based solutions

Students will learn how to build applications with event-based architectures.

### Lessons

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

### Module 11: Develop message-based solutions

Students will learn how to build applications with message-based architectures.

### Lessons

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

### Module 12: Monitor and optimize Azure solutions

This module teaches students how to instrument their code for telemetry and how to analyze and troubleshoot their apps.

### Lessons

- Overview of monitoring in Azure
- Instrument an app for monitoring
- Analyzing and troubleshooting apps
- Implement code that handles transient faults

### Module 13: Integrate caching and content delivery within solutions

Students will learn how to use different caching services to improve the performance of their apps.

### Lessons

- Develop for Azure Cache for Redis
- Develop for storage on CDNs

## Key Learnings

- Developing Azure compute solutions
- Developing for Azure storage
- Implementing Azure security
- Monitoring, troubleshooting, and optimizing Azure solutions
- Connecting to and consuming Azure services and third-party services

## Target audience

This course is aimed at students who are interested in Azure development or in passing the Microsoft Azure Developer Associate certification exam.

## Requirements

Students should have 1-2 years professional development experience and experience with Microsoft Azure. They must be able to program in an Azure Supported Language.

The following course or equivalent knowledge is required:

- [Microsoft Azure Fundamentals \(Hands-on\) – Intensive Training \(«A900IC»\)](#)
- [Microsoft Azure Fundamentals – Flexible Training \(«AZ900V»\)](#)

## Certification

This intensive training prepares you for:

- **Exam:** «AZ-204: Developing Solutions for Microsoft Azure» for the
- **Certification:** «Microsoft Certified: Azure Developer Associate»

## Further courses

- [Designing and Implementing MS DevOps Solutions – Intensive Training \(«AZ400»\)](#)

## Any questions?

We are happy to advise you on +41 44 447 21 21 or [info@digicomp.ch](mailto:info@digicomp.ch). You can find detailed information about dates on [www.digicomp.ch/courses-digital-transformation-technologies/cloud/microsoft-azure/course-developing-solutions-for-microsoft-azure-intensive-training-az-204](https://www.digicomp.ch/courses-digital-transformation-technologies/cloud/microsoft-azure/course-developing-solutions-for-microsoft-azure-intensive-training-az-204)