ORSYS TRAINING

Developing solutions for Microsoft Azure (Microsoft MS AZ-204)
Official course AZ-204T00, exam preparation

Hands-on course of 5 days - 35h
Ref.: DSA - Price 2025: 3 380 (excl. taxes)

EDUCATIONAL OBJECTIVES
At the end of the training, the trainee will be able to:

Create Azure functions, implement and manage web apps

Develop solutions using Azure storage

Implement authentication, authorization, and security for their solutions

Learn to connect to and use Azure services and third-party services

Know how to include templates based on events and messages into the solutions

Learn how to monitor, troubleshoot, and optimize Azure solutions

Select an appropriate cloud technology solution

Create and manage background features in your app

Understand how to deploy your solution using virtual machines or containerized solutions

TEACHING METHODS

Training delivered in French. Official Microsoft course materials (digital MOC) in English.

CERTIFICATION
If you pass the exam, you'll earn Microsoft Certified Azure Developer Associate certification.

THE PROGRAMME

last updated: 05/2024

1) Creating Azure App Service web apps
- Basic concepts of the Azure application service.
- Creating a web app with the Azure App Service.
- Configuration and monitoring of App Service applications.
- Scaling up App Service applications.
- Azure App Service transfer environments.
Hands-on work : Creating a web app on the Azure App Service platform. Various exercises for configuring, upgrading, securing, and deploying on the App Service platform.

2) Implementing Azure functions
- Overview of Azure functions.
- Development of Azure functions.
- Implementation of durable functions.
Hands-on work : Creating a function app. Incorporating triggers and inputs/outputs into the app.

3) Developing solutions using Azure Blob storage
- Basic concepts of Azure Blob storage.
- Lifecycle management of Azure Blob storage.

- Use of Azure Blob storage.
Hands-on work : Creating a solution that uses Azure Blob storage, managing data throughout the Blob storage lifecycle (hot/cool/archive), and using the client storage library Azure Blob Storage to manage data and metadata.

4) Developing solutions that use Cosmos DB storage
- Overview of Azure Cosmos DB.
- Azure Cosmos DB data structure.
- Using Azure Cosmos DB resources and data.
Hands-on work : Creating a solution that uses Cosmos DB, creating Cosmos DB accounts, creating databases, containers, and objects using a combination of the Azure portal and the .NET SDK.

5) Implementing IaaS solutions
- Provisioning virtual machines in Azure.
- Creating and deploying ARM templates.
- Creating Docker images for solutions.
- Publishing images in Azure Container Registry.
- Creating and running images in Azure Container Instances.
Hands-on work : Creating a VM. Using ARM templates to automate resource deployment. Creating and managing Docker images. Publishing an image in the Azure Container Registry. Running a container in Azure Container Instances.

6) Implementing user authentication and authorization
- Microsoft Identity Platform v2.0.
- Authentication using the Microsoft authentication library.
- Using Microsoft Graph.
- Authorizing data operations in Azure Storage.
Hands-on work : Operating the Microsoft v2.0 identity platform. Managing authentication and access to resources. Using the Microsoft Authentication Library and Microsoft Graph to authenticate a user and retrieve information stored in Azure. Using shared access signatures.

7) implementing secure cloud solutions
- Managing keys, secrets, and certificates using the KeyVault API.
- Implementing managed identities for Azure resources.
- Securing the app's configuration data using Azure App Configuration.
Hands-on work : Securing information like: Keys, secrets, certifications, and app configuration information.

8) Implementing API management.
- Overview of API management.
- Defining strategies for APIs.
- Securing your APIs.
Hands-on work : Publishing API. Creating policies to manage information shared by the API. Managing access to your APIs using the Azure API management service.

9) Developing Logic Apps.
- Overview of Azure Logic Apps.
- Creating custom connectors for Logic Apps.
Hands-on work : Using an Azure Logic app to program, automate, and orchestrate tasks, business processes, etc.

10) Developing event-driven solutions
- Implementing solutions that use Azure Event Grid.
- Implementing solutions that use Azure Event Hubs.
- Implementing solutions that use Azure Notification Hubs.
Hands-on work : Creating an application with an event-driven architecture.

11) Developing message-based solutions

- Implementing solutions that use Azure Service Bus.
- Installing solutions that use Azure Queue Storage queues.

Hands-on work : Creating an application with a message-based architecture.

12) Monitoring and optimizing Azure solutions

- Overview of monitoring in Azure.
- Instrumenting an application for monitoring.
- Analyzing and troubleshooting applications.
- Implementing code to handle transient faults.

Hands-on work : Implementing code for telemetry. Analyzing and troubleshooting an app.

13) Incorporating caching and content delivery

- Developing with Azure Redis Cache.
- Developing storage in CDN.

Hands-on work : Using different caching services to improve an app's performance.

DATES

REMOTE CLASS
2025 : 25 août, 15 déc.