

Getting Started with Cosmos DB NoSQL Development (DP-3015)

Duration: 1 day

Audience: Professionnel TI

Who is this training for?

Software engineers tasked with authoring cloud-native solutions that leverage Azure Cosmos DB for NoSQL and its various SDKs. They are familiar with C# programming. They also have experience writing code that interacts with a SQL or NoSQL database platform.

Training objectives

By the end of this course, students will be able to:

- Evaluate whether Azure Cosmos DB for NoSQL is the right database for your application.
- Describe how the features of the Azure Cosmos DB for NoSQL are appropriate for modern applications.
- Create a new Azure Cosmos DB for NoSQL account.
- Create database, container, and item resources for an Azure Cosmos DB for NoSQL account.
- Compare the various service and throughput offerings for Azure Cosmos DB
- Connect to an Azure Cosmos DB for NoSQL account using the SDK and .NET.
- Perform CRUD operations using the SDK.
- Create and execute a NoSQL query.
- Apply data model and partitioning strategies to support an efficient and scalable NoSQL database

Summary

This course teaches developers to utilize Azure Cosmos DB for NoSQL API and SDK. Students will learn query execution, resource configuration, SDK operations, and design strategies for non-relational data modeling and data partitioning.

Course outline

Learning Path 1: Get started with Azure Cosmos DB for NoSQL

- Module 1: Introduction to Azure Cosmos DB for NoSQL
- Module 2: Try Azure Cosmos DB for NoSQL

Learning Path 2: Plan and implement Azure Cosmos DB for NoSQL

- Module 1: Plan and implement Azure Cosmos DB for NoSQL
- Module 2: Configure Azure Cosmos DB for NoSQL database and containers

Learning Path 3: Connect to Azure Cosmos DB for NoSQL with the SDK

- Module 1: Use the Azure Cosmos DB for NoSQL SDK
- Module 2: Configure the Azure Cosmos DB for NoSQL SDK

Learning Path 4: Access and manage data with the Azure Cosmos DB for NoSQL SDKs

- Module 1: Implement Azure Cosmos DB for NoSQL point operations

Learning Path 5: Execute queries in Azure Cosmos DB for NoSQL

- Module 1: Query the Azure Cosmos DB for NoSQL
- Module 2: Author complex queries with the Azure Cosmos DB for NoSQL

Learning Path 6: Implement a data modeling and partitioning strategy for Azure Cosmos DB for NoSQL

- Module 1: Implement a non-relational data model
- Module 2: Design a data partitioning strategy

Approach and methodology

Practical and structured approach combining focused theory and guided workshops. Participants gradually discover how to design and manage analytics solutions with Power BI through hands-on exercises inspired by real-world business scenarios, promoting immediate application of the learnings.

They learn how to prepare and model data, create impactful visualizations, develop interactive reports and dashboards, and apply analytical techniques to support data-driven decision-making.

Led by a Microsoft Certified Trainer (MCT), the training emphasizes interactivity and the development of practical, transferable skills for effectively using Power BI in a professional environment.

Prerequisites

Students should have the following knowledge and experience before attending this course:

- Knowledge of Microsoft Azure and ability to navigate the Azure portal (AZ-900 equivalent)
- Experience writing in an Azure-supported language at the intermediate level. (C#, JavaScript, Python, or Java)
- Ability to write code to connect and perform operations on a SQL or NoSQL database product. (SQL Server, Oracle, MongoDB, Cassandra or similar)

Recommendations

Review: Database concepts (tables, documents, relationships)

Differences between SQL and NoSQL

Familiarize yourself with:

- The Azure portal Identify your needs:
- Large-scale data management
- Modern cloud applications
- Performance and scalability

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