



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

Description

Discover the power of **Azure Cosmos DB for NoSQL** through our course “**Getting Started with Cosmos DB NoSQL Development (DP-3015)**“, designed to equip developers with the essential skills to master NoSQL APIs and SDKs. Learn how to execute queries efficiently, configure resources, and operate with the SDK, while adopting the best strategies for modeling non-relational data and data partitioning.

Whether you are at the stage of being introduced to the fundamentals of **Azure Cosmos DB**, planning resource requirements, or implementing non-relational data models, our course: **Getting Started with Cosmos DB NoSQL Development (DP-3015)**, will guide you through each step with clarity and precision.

Course Content

Module 1: Introduction to Azure Cosmos DB for NoSQL

- What is Azure Cosmos DB for NoSQL
- How does Azure Cosmos DB for NoSQL work
- When should you use Azure Cosmos DB for NoSQL

Module 2: Try Azure Cosmos DB for NoSQL

- Explore resources
- Review basic operations

Module 3: Plan Resource Requirements

- Understand throughput
- Evaluate throughput requirements
- Evaluate data storage requirements
- Time-to-live (TTL)
- Plan for data retention with time-to-live (TTL)

Module 4: Configure Azure Cosmos DB for NoSQL database and containers

- Serverless
- Compare serverless vs. provisioned throughput

- Autoscale throughput
- Compare autoscale vs. standard (manual) throughput
- Migrate between standard (manual) and autoscale throughput

Module 5: Use the Azure Cosmos DB for NoSQL SDK

- Understand the SDK
- Import from package manager
- Connect to an online account
- Implement client singleton
- Configure connectivity mode

Module 6: Configure the Azure Cosmos DB for NoSQL SDK

- Enable offline development
- Handle connection errors
- Implement threading and parallelism
- Configure logging

Module 7: Implement Azure Cosmos DB for NoSQL point operations

- Understand point operations
- Create documents
- Read a document
- Update documents
- Configure time-to-live (TTL) value for a specific document
- Delete documents

Module 8: Query the Azure Cosmos DB for NoSQL

- Understand SQL query language
- Create queries with SQL
- Project query results
- Implement type-checking in queries
- Use built-in functions
- Execute queries in the SDK

Module 9: Author complex queries with the Azure Cosmos DB for NoSQL

- Create cross-product queries
- Implement correlated subqueries
- Implement variables in queries
- Paginate query results

Module 10: Implement a non-relational data model

- What's the difference between NoSQL and relational databases?
- Identify access patterns for your app
- When to embed or reference data
- Choose a partition key
- Model small lookup entities

Module 11: Design a data partitioning strategy

- Denormalize data in your model
- Manage referential integrity by using change feed
- Combine multiple entities in the same container
- Denormalize aggregates in the same container
- Finalize the data model

Documentation

- Digital course material included

Participant profiles

- Software Engineers

Prerequisites

- Knowledge of programming in C#.
- Experience in writing code that interacts with a SQL or NoSQL database platform.

Objectives

- Master Azure Cosmos DB for NoSQL
- Plan resource requirements and assess throughput and storage needs
- Configure Azure Cosmos DB databases and containers for optimal throughput management
- Use and configure the Azure Cosmos DB SDK for NoSQL for efficient development
- Implement and manage cutting-edge operations on documents
- Design and execute complex queries, including pagination and correlated subqueries

Description

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Niveau

Intermédiaire

Classroom Registration Price (CHF)

900

Virtual Classroom Registration Price (CHF)

850

Duration (in Days)

1

Reference

DP-3015