

# MDAI-18 - MOC DP-420T00 - DESIGNING AND IMPLEMENTING CLOUD-NATIVE APPLICATIONS USING MICROSOFT AZURE COSMOS DB

Categoria: **Data & AI**

## INFORMAZIONI SUL CORSO



**Durata:**  
4 Giorni



**Categoria:**  
Data & AI



**Qualifica Istruttore:**  
Microsoft Certified  
Trainer



**Dedicato a:**  
Professionista IT



**Produttore:**  
Microsoft

## OBIETTIVI

This course teaches developers how to create application using the SQL API and SDK for Azure Cosmos DB. Students will learn how to write efficient queries, create indexing policies, manage and provisioned resources, and perform common operations with the SDK.

## PREREQUISITI

Before attending this course, students must have:

- 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)

## CONTENUTI

### **Get started with Azure Cosmos DB for NoSQL**

- Introduction to Azure Cosmos DB for NoSQL
- Try Azure Cosmos DB for NoSQL

### **Plan and implement Azure Cosmos DB for NoSQL**

- Plan Resource Requirements
- Configure Azure Cosmos DB for NoSQL
- Move data into and out of Azure Cosmos DB for NoSQL

### **Connect to Azure Cosmos DB for NoSQL with the SDK**

- Use the Azure Cosmos DB for NoSQL SDK
- Configure the Azure Cosmos DB for NoSQL SDK

### **Access and manage data with the Azure Cosmos DB for NoSQL SDKs**

- Implement Azure Cosmos DB for NoSQL point operations

- Perform cross-document transactional operations with the Azure Cosmos DB for NoSQL
- Process bulk data in Azure Cosmos DB for NoSQL

#### **Execute queries in Azure Cosmos DB for NoSQL**

- Query the Azure Cosmos DB for NoSQL
- Author complex queries with the Azure Cosmos DB for NoSQL

#### **Define and implement an indexing strategy for Azure Cosmos DB for NoSQL**

- Define indexes in Azure Cosmos DB for NoSQL
- Customize indexes in Azure Cosmos DB for NoSQL

#### **Integrate Azure Cosmos DB for NoSQL with Azure services**

- Consume an Azure Cosmos DB for NoSQL change feed using the SDK
- Handle events with Azure Functions and Azure Cosmos DB for NoSQL change feed
- Search Azure Cosmos DB for NoSQL data with Azure Cognitive Search

#### **Implement a data modeling and partitioning strategy for Azure Cosmos DB for NoSQL**

- Implement a non-relational data model
- Design a data partitioning strategy

#### **Design and implement a replication strategy for Azure Cosmos DB for NoSQL**

- Configure replication and manage failovers in Azure Cosmos DB
- Use consistency models in Azure Cosmos DB for NoSQL
- Configure multi-region write in Azure Cosmos DB for NoSQL

#### **Optimize query and operation performance in Azure Cosmos DB for NoSQL**

- Customize an indexing policy in Azure Cosmos DB for NoSQL
- Measure index performance in Azure Cosmos DB for NoSQL
- Implement integrated cache in Azure Cosmos DB for NoSQL

#### **Monitor and troubleshoot an Azure Cosmos DB for NoSQL solution**

- Measure performance in Azure Cosmos DB for NoSQL
- Monitor responses and events in Azure Cosmos DB for NoSQL
- Implement backup and restore for Azure Cosmos DB for NoSQL
- Implement security in Azure Cosmos DB for NoSQL

#### **Manage an Azure Cosmos DB for NoSQL solution using DevOps practices**

- Write management scripts for Azure Cosmos DB for NoSQL
- Create resource template for Azure Cosmos DB for NoSQL

#### **Create server-side programming constructs in Azure Cosmos DB for NoSQL**

- Build multi-item transactions with the Azure Cosmos DB for NoSQL
- Expand query and transaction functionality in Azure Cosmos DB for NoSQL

## **INFO**

**Esame:** DP-420 - Designing and Implementing Cloud-Native Applications Using Microsoft Azure Cosmos DB

**Materiale didattico:** Materiale didattico ufficiale Microsoft in formato digitale

**Costo materiale didattico:** incluso nel prezzo del corso a Calendario

**Natura del corso:** Operativo (previsti lab su PC)