

Designing and Implementing Cloud-Native Applications Using Microsoft Azure Cosmos DB

Course DP-420T00: 4 days Instructor Led

About this course

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.

Audience profile

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

At course completion

After completing this course, students will be able to:

- Get started with Azure Cosmos DB for NoSQL
- Plan and implement Azure Cosmos DB for NoSQL
- Connect to Azure Cosmos DB for NoSQL with the SDK
- Access and manage data with the Azure Cosmos DB for NoSQL SDKs
- Execute queries in Azure Cosmos DB for NoSQL
- Define and implement an indexing strategy for Azure Cosmos DB for NoSQL
- Integrate Azure Cosmos DB for NoSQL with Azure services
- Implement a data modeling and partitioning strategy for Azure Cosmos DB for NoSQL
- Design and implement a replication strategy for Azure Cosmos DB for NoSQL
- Optimize query and operation performance in Azure Cosmos DB for NoSQL
- Monitor and troubleshoot an Azure Cosmos DB for NoSQL solution
- Manage an Azure Cosmos DB for NoSQL solution using DevOps practices
- Create server-side programming constructs in Azure Cosmos DB for NoSQL

Course Outline

Module 1: Get started with Azure Cosmos DB for NoSQL

Module 2: Plan and implement Azure Cosmos DB for NoSQL

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

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

Module 5: Execute queries in Azure Cosmos DB for NoSQL

Module 6: Define and implement an indexing strategy for Azure Cosmos DB for NoSQL

Module 7: Integrate Azure Cosmos DB for NoSQL with Azure services

Module 8: Implement a data modeling and partitioning strategy for Azure Cosmos DB for NoSQL

Module 9: Design and implement a replication strategy for Azure Cosmos DB for NoSQL

Module 10: Optimize query and operation performance in Azure Cosmos DB for NoSQL

Module 11: Monitor and troubleshoot an Azure Cosmos DB for NoSQL solution

Module 12: Manage an Azure Cosmos DB for NoSQL solution using DevOps practices

Module 13: Create server-side programming constructs in Azure Cosmos DB for NoSQL