

# DP-420T00: Designing and Implementing Cloud-Native Applications Using Microsoft Azure Cosmos DB

**Price:** 2395

**Duration:** 4 days

**Delivery Methods:** Virtual

## Overview

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

- Create and configure Azure Cosmos DB SQL API account, database, and container
- Use the .NET SDK to manage resources and perform operations
- Perform queries of varying complexity
- Design a data modeling and partitioning strategy
- Optimize queries and indexes based on characteristics of an application
- Use the Azure Resource Manager to manage accounts and resources with CLI or JSON and Bicep templates

## Outline

Module 1: Get started with Azure Cosmos DB SQL API

Module 2: Plan and implement Azure Cosmos DB SQL API

Module 3: Connect to Azure Cosmos DB SQL API with the SDK

Module 4: Access and manage data with the Azure Cosmos DB SQL API SDKs

Module 5: Execute queries in Azure Cosmos DB SQL API

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

Module 7: Integrate Azure Cosmos DB SQL API with Azure services

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

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

Module 10: Optimize query performance in Azure Cosmos DB SQL API

Module 11: Administrating and Monitoring tasks for an Azure Cosmos DB SQL API solution

Module 12: Manage an Azure Cosmos DB SQL API solution using DevOps practices

Module 13: Create server-side programming constructs in Azure Cosmos DB SQL API

## Prerequisites

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)

## Course Schedule

Date	Time	Price	Options
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**What is your late policy?**

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