

DP 420: Design and Implement Cloud-Native Applications with Microsoft Azure Cosmos DB



Duration: 4 days

Audience: Software engineers tasked with authoring cloud-native solutions that leverage Azure Cosmos DB for NoSQL 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.

Prerequisites: Before starting this learning path, you should already have: Familiarity with Azure and the Azure portal. Experience programming with C#. If you have no previous programming experience, we recommend you complete the Take your first steps with C# learning path before starting this one.

Description: This course teaches developers how to create applications using the NoSQL 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.

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 AND BUILD A GENERATIVE AI APPLICATION WITH AZURE COSMOS DB

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