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

Category: AI, Data & Analytics | **Vendor:** Microsoft

Duration: 32.00 hours (4 days) **26.0 CPD Hours** **Rating:** ⭐ 4.6 (5,878 reviews)

Course Information

Delivery Format:	Instructor Led - Online
Certification:	Microsoft Certified: Azure Cosmos DB Developer Specialty
Related Exam:	DP-420

Course Overview

This course teaches developers how to create application using the SQL API and SDKs 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 SDKs.

About This Course

This course teaches developers how to create application using the SQL API and SDKs 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 SDKs.

Who Should Attend

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.

Prerequisites & Entry Requirements

General Prerequisites:

Experience writing in an Azure-supported language at the intermediate level. (C#, JavaScript, Python, or Java), AZ-900T00: Microsoft Azure Fundamentals, Knowledge of Microsoft Azure and ability to navigate the Azure portal, Ability to write code to connect and perform operations on a SQL or NoSQL database product. (SQL Server, Oracle, MongoDB, Cassandra or similar)

Learning Outcomes

Upon successful completion of this course, participants will be able to:

After completing this course, students will be able to:

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

Detailed Course Outline

Module 1: Get started with Azure Cosmos DB SQL API

- Introduction to Azure Cosmos DB SQL API
- Try Azure Cosmos DB SQL API

Module 2: Plan and implement Azure Cosmos DB SQL

- Plan Resource Requirements
- Configure Azure Cosmos DB SQL API database and containers
- Moving data into and out of Azure Cosmos DB SQL API

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

- Use the Azure Cosmos DB SQL API SDK
- Configure the Azure Cosmos DB SQL API SDK

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

- Implement Azure Cosmos DB SQL API point operations
- Perform cross-document transactional operations with the Azure Cosmos DB SQL API
- Process bulk data in Azure Cosmos DB SQL API

Module 5: Execute queries in Azure Cosmos DB SQL API

- Query the Azure Cosmos DB SQL API
- Author complex queries with the Azure Cosmos DB SQL API

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

- Define indexes in Azure Cosmos DB SQL API
- Customize indexes in Azure Cosmos DB SQL API

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

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

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

- Model and partition your data in Azure Cosmos DB
- Optimize databases by using advanced modeling patterns for Azure Cosmos DB

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

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

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

- Choosing indexes in Azure Cosmos DB SQL API
- Optimize queries in Azure Cosmos DB SQL API
- Implement integrated cache

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

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

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

- Write scripts for Azure Cosmos DB SQL API
- Create resource template for Azure Cosmos DB SQL API

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

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

, Connect to Azure Cosmos DB for NoSQL with the SDK, Get started with Azure Cosmos DB for NoSQL, Plan and implement Azure Cosmos DB for NoSQL, Access and manage data with the Azure Cosmos DB for NoSQL SDKs, Execute queries in Azure Cosmos DB for NoSQL, Implement a data modeling and partitioning strategy for 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, Define and implement an indexing 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, LAB Outline, Use consistency models in Azure Cosmos DB for NoSQL, Configure replication and manage failovers in Azure Cosmos DB, Design a data partitioning strategy, Search Azure Cosmos DB for NoSQL data with Azure Cognitive Search, Implement a non-relational data model, Handle events with Azure Functions and Azure Cosmos DB for NoSQL change feed, Implement integrated cache in Azure Cosmos DB for NoSQL, Measure performance in Azure Cosmos DB for NoSQL, Monitor responses and events in Azure Cosmos DB for NoSQL, Configure multi-region write in Azure Cosmos DB for NoSQL, Measure index performance in Azure Cosmos DB for NoSQL, Customize an indexing policy in Azure Cosmos DB for NoSQL, Implement security in Azure Cosmos DB for NoSQL, Implement backup and restore for Azure Cosmos DB for NoSQL, Write management scripts for Azure Cosmos DB for NoSQL, Create resource template for 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, Consume an Azure Cosmos DB for NoSQL change feed using the SDK, Customize indexes in Azure Cosmos DB for NoSQL, Manage an Azure Cosmos DB for NoSQL solution using DevOps practices.

□□ Certification Path

Microsoft Certified: Azure Cosmos DB Developer Specialty

Exam: DP-420

Additional Course Details

Nexus Humans DP-420: Designing and Implementing Cloud-Native Applications Using Microsoft Azure Cosmos DB training program is a workshop that presents an invigorating mix of sessions, lessons, and masterclasses meticulously crafted to propel your learning expedition forward.

This immersive bootcamp-style experience boasts interactive lectures, hands-on labs, and collaborative hackathons, all strategically designed to fortify fundamental concepts.

Guided by seasoned coaches, each session offers priceless insights and practical skills crucial for honing your expertise. Whether you're stepping into the realm of professional skills or a seasoned professional, this comprehensive course ensures you're equipped with the knowledge and prowess necessary for success.

While we feel this is the best course for the DP-420: Designing and Implementing Cloud-Native Applications Using Microsoft Azure Cosmos DB course and one of our Top 10 we encourage you to read the course outline to make sure it is the right content for you.

Additionally, private sessions, closed classes or dedicated events are available both live online and at our training centres in Dublin and London, as well as at your offices anywhere in the UK, Ireland or across EMEA.

Frequently Asked Questions

Q: What delivery options are available for DP-420T00: Designing and Implementing Cloud-Native Applications Using Microsoft Azure Cosmos DB?

We offer multiple delivery formats:

- Live Instructor-Led Classroom Online (Virtual/Live Online)
- Traditional Instructor-Led Classroom Training (ILT)
- On-site delivery at your offices anywhere in United Kingdom
- Private dedicated courses customized for your team

Q: What certification does this course prepare me for?

The DP-420T00: Designing and Implementing Cloud-Native Applications Using Microsoft Azure Cosmos DB course helps prepare you for the Microsoft Certified: Azure Cosmos DB Developer Specialty certification path.

Q: Which exam does this course prepare me for?

This course prepares you for the DP-420 official exam. You can take this exam at any exam center across United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online wherever you are located.

Q: How many CPD hours does this course provide?

The 4-day DP-420T00: Designing and Implementing Cloud-Native Applications Using Microsoft Azure Cosmos DB course provides up to 26.0 CPD hours of structured learning. CPD certificates can be provided upon request.

Q: What is the duration of the DP-420T00: Designing and Implementing Cloud-Native Applications Using Microsoft Azure Cosmos DB training?

The training takes place over 4 day(s), with each day lasting approximately 32.00 hours including breaks for lunch and refreshments.

Q: Do you provide corporate training for DP-420T00: Designing and Implementing Cloud-Native Applications Using Microsoft Azure Cosmos DB?

Yes, we provide corporate training, dedicated training, and closed classes for DP-420T00: Designing and Implementing Cloud-Native Applications Using Microsoft Azure Cosmos DB. Training can take place anywhere in United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online allowing teams from across United Kingdom or internationally to attend.

Q: What related terms do people search for?

Popular related searches include: dp420 dp 420, DP-420T00: Design and implement cloud-native applications with Microsoft Azure Cosmos DB, Microsoft, vILT, DP-420T00

Q: Why choose Nexus Human for DP-420T00: Designing and Implementing Cloud-Native Applications Using Microsoft Azure Cosmos DB?

Nexus Human is recognized as one of the leading training providers. Our trainers have won multiple awards including:

- Small Firms Best Trainer Award
- National Training Partner of the Year (Ireland) - Multiple Years
- Global Top 30 Instructor Awards (2012, 2019, 2021)
- Tech Excellence Award Nominations
- Learning Performance Institute (LPI) External Training Provider Sponsor 2024

Q: Are there any discount codes available?

Yes! Use discount code **PENPAL5** when booking your DP-420T00: Designing and Implementing Cloud-Native Applications Using Microsoft Azure Cosmos DB training. Please note that only one discount code can be used per booking and cannot be combined with other special offers.

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