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Learning Style: Virtual Classroom

Technology: Microsoft

Difficulty: Intermediate

Course Duration: 1 Day

Getting Started with Cosmos DB NoSQL Development (DP-3015)



About This Course:

Getting Started with Cosmos DB NoSQL Development certification is designed for professionals looking to validate their skills in developing NoSQL solutions with Cosmos DB, a globally distributed, multi-model database service offered by

Microsoft Azure. The certification typically covers the foundational knowledge required to create and manage Cosmos DB resources, design NoSQL data models, and implement data access using the supported APIs. Industries use Cosmos DB for its seamless scaling, low-latency access, multiple consistency models, and various API options, such as SQL, MongoDB, Cassandra, Gremlin, or Table, to build highly responsive and globally distributed applications, making expertise in Cosmos DB valuable.

Course Objectives:

- Introduction to Azure Cosmos DB for NoSQL
- Try Azure Cosmos DB for NoSQL
- Plan Resource Requirements
- Configure Azure Cosmos DB for NoSQL database and containers
- Use the Azure Cosmos DB for NoSQL SDK
- Configure the Azure Cosmos DB for NoSQL SDK
- Implement Azure Cosmos DB for NoSQL point operations
- Query the Azure Cosmos DB for NoSQL
- Author complex queries with the Azure Cosmos DB for NoSQL
- Implement a non-relational data model
- Design a data partitioning strategy

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# programming. They also have experience writing code that interacts with a SQL or NoSQL database platform.

Prerequisites:

- Basic understanding of NoSQL databases
- Familiarity with JSON data format
- Experience with a programming language (e.g., C#, Python, Java)
- Knowledge of RESTful API concepts
- Azure account for hands-on practice (optional but recommended)

Course Outline:

- Understanding the core concepts of NoSQL and Cosmos DB.
- Learning how to create and manage Cosmos DB accounts, databases, and containers.
- Developing skills to implement data models and partitioning strategies.
- Mastering data querying using SQL and the MongoDB API.
- Gaining the ability to integrate Cosmos DB with various applications.

- Exploring security features, consistency models, and performance tuning in Cosmos DB.
- Acquiring knowledge in monitoring, troubleshooting, and optimizing Cosmos DB solutions.
- Understanding the best practices for developing scalable and maintainable NoSQL applications with Cosmos DB