Develop data-driven applications by using Azure SQL Database (DP-3020)

Description

Create and configure an Azure SQL Database

This DP-3020 course trains you in developing data-driven applications with Azure SQL Database. You will learn to configure a database, automate deployment, and create data APIs integrated into your applications. This program also teaches you how to import data via REST endpoints and export data using Azure Functions. You will discover how to secure your databases and ensure their resilience for high-performance and reliable applications.

Tools like GitHub Actions and Azure Pipelines will be used to simplify continuous deployment. Azure's data API builder will be used to create REST and GraphQL APIs. This training will provide you with essential skills to develop modern applications and optimize data management.

Automate development and deployment

You will use GitHub Actions and Azure DevOps to automate deployment and ensure continuous integration (CI/CD). This course is designed for professionals seeking to master data-driven application development with Azure, combining performance, security, and automation.

Niveau
Intermédiaire
Course Content
Module 1: Get started with Azure SQL Database for modern application development

- Explain deployment options
- Explore Hyperscale capabilities
- Understand the serverless compute tier
- Enable application resilience with Azure SQL Database
- Understand AI capabilities for Azure SQL Database

Module 2: Develop for Azure SQL Database

- Create and configure an Azure SQL Database
- Use SQL Database Projects
- Build and deploy database projects in GitHub Actions and Azure DevOps
- Secure and monitor Continuous Integration and Continuous Deployment (CI/CD)

Module 3: Develop a data API for Azure SQL Database

- Explore Data API Builder for Azure SQL Database
- Develop a data API using Azure Static Web Apps
- Develop a data API using Azure Web App for Containers

Module 4: Explore data manipulation options in Azure SQL Database

- Use RESTful endpoints to import data to Azure SQL Database
- Manipulate data in Azure SQL Database with Azure Functions
- Understand the data movement tools available

Module 5: Explore security practices for Azure SQL Database

- Explore authentication methods
- Configure managed identity
- Understand firewall rules
- Explore advanced data security

Lab / Exercises

- This course provides you with exclusive access to the official Microsoft lab, enabling you to practice your skills in a professional environment.

Documentation

- Access to Microsoft Learn, Microsoft's online learning platform, offering interactive resources and educational content to deepen your knowledge and develop your technical skills.

Participant profiles
 Solution architects Application developers Database administrators DevOps engineers IT project managers
Prerequisites

- Experience with relational databases
- Knowledge of security concepts: identities and permissions
- Using the Azure Portal to create resources

Objectives

- Create and configure an Azure SQL Database
- Leverage Hyperscale and serverless features
- Automate deployment with GitHub Actions and Azure DevOps
- Secure continuous integration (CI/CD)
- Develop a data API with Azure Web Apps
- Import and export data via REST endpoints
- Ensure application security and resilience

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Develop data-driven applications by using Azure SQL Database (DP-3020)
Classroom Registration Price (CHF)
900
Virtual Classroom Registration Price (CHF)
850
Duration (in Days)
1
Reference
DP-3020