

## Updating your DBA skills to Microsoft SQL Server 2012

This three-day instructor-led course provides existing SQL Server database professionals with the knowledge and skills to use new and enhanced capabilities in SQL Server 2012.

### Détails

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|--|---------------------------|--|
| • <b>Code</b> : SQL-S2012UG            | <b>Public</b>             | <b>Pré-requis</b>  |
| • <b>Durée</b> : 3 jours ( 21 heures ) | • Database Administrators | • Experience of creating and managing database solutions in SQL Server, including basic Transact-SQL programming |

### Objectifs

- Describe key new and enhanced features in SQL Server 2012.
- Install SQL Server 2012.
- Use enhanced tools and PowerShell support to manage SQL Server 2012.
- Use enhanced Transact-SQL and storage capabilities to develop SQL Server 2012 databases.
- Use new and enhanced performance capabilities to optimize a SQL Server 2012 database.

### Programme

#### Module 1: Introducing SQL Server 2012

- This module provides an overview of SQL Server 2012.

#### Lessons

- Overview of SQL Server 2012
- SQL Server 2012 Editions and Components

#### After completing this module, students will be able to:

- Describe SQL Server 2012.
- List SQL Server 2012 Editions and Components.

#### Module 2: Installing SQL Server 2012

- This module describes how to install SQL Server 2012.

#### Lessons

- Installation Options and Requirements
- Installing SQL Server
- Deploying SQL Server in a Private Cloud

#### Lab : Installing SQL Server

- Installing a SQL Server 2012 Named Instance
- Performing Post-Installation Setup and Checks

#### Lab : Using a Data-Tier Application in a Private Cloud Scenario

- Creating a Data-Tier Application
- Deploying a Data-Tier Application

#### After completing this module, students will be able to:

- List the installation options and requirements for SQL Server 2012.
- Install SQL Server 2012.
- Describe considerations for provisioning database servers in a private cloud

#### Module 3: Managing SQL Server 2012

- This module describes new and enhanced features that make it easier to manage SQL Server databases.

#### Lessons

- Enhancements to SQL Server Management Studio
- New and Enhanced Dynamic Management Views
- Using PowerShell to Manage SQL Server

#### Lab : Managing SQL Server

- Using SQL Server Management Studio
- Using SQL Server Management Studio

#### After completing this module, students will be able to:

- Use enhancements to SQL Server Management Studio
- Use new and enhanced Dynamic Management Views
- Use PowerShell to Manage SQL Server.

#### Module 4: Developing SQL Server 2012 Databases

- This module describes new Transact-SQL and data storage capabilities that you can use to develop databases.

#### Lessons

- Transact-SQL Enhancements
- New and Enhanced Transact-SQL Functions
- Enhancements to Spatial Data Support
- Storing and Querying Documents

#### Lab : Developing SQL Server Databases

- Using Sequence Objects
- Using the THROW Statement
- Implementing Paging
- Querying Documents

#### After completing this module, students will be able to:

- Describe enhancements to Transact-SQL.

- Describe new and enhanced Transact-SQL functions.
- Describe Enhancements to Spatial Data Support.
- Explain how to store and query documents with SQL Server 2012.

### Module 5: Performance and Tuning Enhancements

- This module provides an introduction to new and enhanced performance tuning features in SQL Server 2012.

#### Lessons

- Performance Optimization Tools
- Enhancements to Indexing

#### Lab : Optimizing SQL Server Performance

- Creating a Columnstore Index
- Using a Columnstore Index
- Updating a Table with a Columnstore Index

#### After completing this module, students will be able to:

- Describe enhancements to performance optimization tools.
- Use indexing enhancements to increase query performance.

### Module 6: High Availability and Data Recovery Enhancements

- This module provides an introduction to new and enhanced features for data recovery and availability.

#### Lessons

- AlwaysOn High Availability
- Enhancements to Data Recovery

#### Lab : Using AlwaysOn Availability Groups

- Creating an AlwaysOn Availability Group
- Using an AlwaysOn Availability Group
- Observing Availability Group Failover Behavior

#### After completing this module, students will be able to:

- Use AlwaysOn technologies to support high availability.
- Use enhancements to database restore capabilities.

### Module 7: Implementing Security in Microsoft SQL Server 2012

- This module describes how to use security enhancements

in SQL Server 2012.

#### Lessons

- Security Management Enhancements
- Contained Databases

#### Lab : Implementing Security

- Implementing user-Defined Server Roles
- Implementing Contained Databases

#### After completing this module, students will be able to:

- Describe security management enhancements.
- Implement contained databases.

### Module 8: Extending Data Solutions to the Cloud

- This module provides an introduction to SQL Azure.

#### Lessons

- Introduction to SQL Azure
- Working with SQL Azure

#### Lab : Using SQL Azure

- Creating a Database in SQL Azure
- Using SQL Server Management Studio with SQL Azure

#### After completing this module, students will be able to:

- Describe key features and benefits of SQL Azure.
- Create and manage SQL Azure databases.

### Module 9: Overview of BI Enhancements in SQL Server 2012

- This module introduces enhancements to BI support in SQL Server 2012.

#### Lessons

- SQL Server 2012 for Data Warehousing
- SQL Server 2012 for Business Intelligence

#### Lab : Exploring BI Features

- Using PowerPivot
- Using Power View

#### After completing this module, students will be able to:

- Describe enhancements in SQL Server 2012 for data warehousing.
- Describe enhancements in SQL Server 2012 for BI.

## Modalités

- **Type d'action** :Acquisition des connaissances
- **Moyens de la formation** :Formation présentielle – 1 poste par stagiaire – 1 vidéo projecteur – Support de cours fourni à chaque stagiaire
- **Modalités pédagogiques** :Exposés – Cas pratiques – Synthèse
- **Validation** :Exercices de validation – Attestation de stages