

SQL Server administration, the essentials



SII-309 2 Days (14 Hours)

Description

This training will allow Windows administrators to learn the essentials for managing a SQL Server database. It presents the fundamental configuration elements as well as the tools and best practices necessary to monitor, ensure consistency, and back up database data.

Who is this training for ?

For whom

Windows system administrator.

Prerequisites

Aucune

Training objectives

- Understand the architecture and main components of the SQL Server DBMS
- Define a backup strategy and implement it
- Implement security at different levels of the database (base, schemas, users)
- Monitor the processing, maintain the quality and integrity of data on the database
- Anticipate and resolve blocking situations on the database

Training program

Installation et configuration du moteur SQL Server

- General presentation of SQL Server: editions, services.
- The general architecture of SQL Server.
- The important steps of the installation.
- The arrangement of files on the disks: data files, transaction log, tempdb.
- Important elements of the configuration: server and database properties.
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- SQL Server administration tools.
- Command line utilities.
- Practical work Observing the transaction log and tempdb.

Sauvegarde et reprise sur incident

- The architecture of backup and restoration.
- The different backup modes.
- Establish a database backup strategy.
- Perform complete or partial restorations.
- Backups on network shares.
- Practical work Setting up a backup strategy.
- Restoring a corrupted database.

Gestion de la sécurité

- SQL Server security overview.
- Service accounts.
- Connection authentication.
- Permissions in databases.
- Protecting backups.
- Practical work Creating logins and permissions on a table.

Maintenance du serveur

- Integrity verification, recovery of pages in case of corruption.
- Defragmentation of indexes, reconstruction and reorganization.
- Updating statistics .
- Scheduling administrative tasks.
- Running SQL Server Agent jobs.
- The Maintenance Plan Wizard.
- Practical work Implementation of a maintenance plan.

Supervision du moteur SQL

- Performance counters to monitor, processor, memory usage, disk activity.
- How to proactively identify problems? Manage blocking situations, deadlocks .
- Manage memory and processors.
- Practical work Monitoring with the performance monitor.
- Resolving a deadlock situation.