

SQL Server Administration for Other DBAs



SII-313 3 Days (21 Hours)

Description

This internship will provide you with the necessary knowledge to install, configure and administer SQL Server 2012. You will discover the architecture of the server, learn how to configure it, optimize data storage, automate tasks as well as secure and guarantee data integrity.

Who is this training for ?

For whom

Experienced non-SQL Server database administrators, application administrators, and consultants.

Prerequisites

Aucune

Training objectives

- Install and configure the SQL Server database
- Organize and optimize the physical storage of objects on the database
- Automate common administrative tasks
- Use several modes of saving and restoring database data
- Repair damaged databases
- Ensure the maintenance of indexes and statistics

Training program

Installation et configuration

- SQL Server architecture.
- Installation, migration.
- Service configuration tools.
- SQL Server Management Studio and SQLcmd.exe.
- Instances, schema databases.
- Objects and system databases.
- The "Data Management Views" .
- Administration policies.
- Configure the instance.
- Practical work Use dynamic consultation tools.
- Configuration using Policy Based Management (PBM).

Gestion des espaces de stockage

- Storage engine and physical storage.
- Object allocation.
- Table partitioning and indexes.
- Calculated columns.
- Manage database growth.
- Database snapshots (SNAPSHOT).
- Transparent Data Encryption: encrypt storage.
- Practical work Creating a database.
- File management.
- Creating snapshots.
- Setting up TDE.

Automatisation des tâches administratives

- SQL Server agent scheduling tasks.
- MSDB specific roles.
- Execution log, monitor.
- Alerts and notifications.
- Operator management.
- Sending emails: configure settings.
- Multi-server work.
- Redirection of emails events.
- DDL triggers.
- Events: performance, WMI, WQL.
- Hands-on labs Automate and schedule jobs.

Sauvegardes et restaurations

- Backup types.
- Recovery modes and their influence.
- Backup strategy.
- Security.
- Planning.
- Restoration, repair of damaged environments.
- The different restorations.
- Backup of system databases.
- Practical work Configure backups and restores.

Maintenance courante

- Check physical integrity.
- Recover engine information (DBCC).
- Repair damaged databases.
- Diagnostics of indexes in SQL Server.
- Query metrics and execution plan.
- Setting up indexes.
- Maintaining indexes and statistics.
- The maintenance plan tool.
- Practical work Maintain indexes and statistics.
- Check storage integrity.

Introduction à la haute disponibilité

- The principle of "log shipping" and mirroring.
- AlwaysOn: availability groups, replicas, listeners.