Course : SQL Server administration, the essentials

Practical course - 2d - 14h00 - Ref. ASL
Price : 1600 CHF E.T.

★★★★★ **5 / 5**

This training course will enable Windows administrators to learn the essentials of SQL Server DB management. It presents the fundamental configuration elements, as well as the tools and best practices needed to supervise, guarantee consistency and back up database data.

Teaching objectives

At the end of the training, the participant will be able to:

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

Intended audience
Windows system administrators.

Prerequisites
Good knowledge of Windows administration.

Practical details
Hands-on work
Training alternates theory and practice. Everything we learn is put into practice.

Course schedule

PARTICIPANTS
Windows system administrators.

PREREQUISITES
Good knowledge of Windows administration.

TRAINER QUALIFICATIONS
The experts leading the training are specialists in the covered subjects. They have been approved by our instructional teams for both their professional knowledge and their teaching ability, for each course they teach. They have at least five to ten years of experience in their field and hold (or have held) decision-making positions in companies.

ASSESSMENT TERMS
The trainer evaluates each participant's academic progress throughout the training using multiple choice, scenarios, hands-on work and more.
Participants also complete a placement test before and after the course to measure the skills they've developed.

TEACHING AIDS AND TECHNICAL RESOURCES
• The main teaching aids and instructional methods used in the training are audiovisual aids, documentation and course material, hands-on application exercises and corrected exercises for practical training courses, case studies and coverage of real cases for training seminars.
• At the end of each course or seminar, ORSYS provides participants with a course evaluation questionnaire that is analysed by our instructional teams.
• A check-in sheet for each half-day of attendance is provided at the end of the training, along with a course completion certificate if the trainee attended the entire session.

1. Installing and configuring the SQL Server engine

- SQL Server overview: editions, services.
- General SQL Server architecture.
- Installation milestones.
- Disk file layout: data files, transaction logs, tempdb.
- Important configuration elements: server and database properties.
- SQL Server administration tools. Command-line utilities.

Hands-on work
Transaction log and tempdb observation.

2. Backup and disaster recovery

- Backup and restore architecture.
- Different backup modes.
- Establish a database backup strategy.
- Complete or partial restorations.
- Backups on network shares.

Hands-on work
Setting up a backup strategy. Restore a corrupted database.

3. Safety management

- Overview of SQL Server security.
- Service accounts.
- Connection authentication.
- Database permissions.
- Backup protection.

Hands-on work
Create logins and permissions on a table.

4. Server maintenance

- Integrity checking, page recovery in the event of corruption.
- Index defragmentation, reconstruction and reorganization.
- Updating statistics.
- Scheduling administrative tasks. SQL Server agent job execution.
- Maintenance plan wizard.

Hands-on work
Implementation of a maintenance plan.

5. SQL engine supervision

- Performance counters to monitor: processor, memory usage, disk activity.
- How do you proactively identify problems?
- Managing deadlocks.
- Manage memory and processors.

Hands-on work
Monitoring with the performance monitor. Troubleshooting blockages.

Dates and locations

REMOTE CLASS

2026 : 19 Mar., 28 May, 15 Oct., 17 Dec.