SETC Training Corporate Logo

# SQL Server Training: Mastering Always-On Technologies (SQLAO, 4 jours)

## Description

The course Mastering Always-On Technologies (SQL Server Training) allows database professionals to design, implement and monitor a robust database infrastructure that can serve clients 24/7. The training introduces the concepts of always on infrastructure design with SQL Server and discusses the full implementation & maintenance of the design with SQL Server. The course includes topology design, installation & configuration in a SQL Server Always-On context.

## Tarifs

- Tarification: $3,750/person
- Rabais de 10% lorsque vous inscrivez 3 personnes.

## Plan de cours

### High Availability and Disaster Recovery Concepts

- What is High Availability and Disaster Recovery
- Levels of Availability
- Recovery Objectives
- Proactive Maintenance

### High Availability and Disaster Recovery technologies

- Availability Groups
- Always On Cluster Failover
- SQL Failover Cluster Instance to Stand-Alone and vice versa
- Database Mirroring
- Replication

### Implementing a Cluster

- Overview of Failover Cluster
- Creating a Cluster
- Installing the Failover Cluster
- Benefits and Limitations of Failover Cluster

### Implementing Always On Failover Cluster Instance

- Building an Instance
- Create Failure Cluster Using Cluster Manager
- Create Failover Cluster Using PowerShell
- Workgroup and Multiple Domain Clusters

### Implementing AlwaysOn Availability Groups

- High Availability with AlwaysOn Availability Groups
- Configuring SQL Server
- Configuring the Cluster
- Configuring the Availability Group and Disaster Recovery with Availability
- Other Ways to Create Availability Groups

### Post-Installation Tasks

- Review Availability Groups
- Review Replication – Logins plus
- Using Contained Database with Availability Groups
- Replication using SSIS and SQL Agents

Secondary Replicas

- What are Secondary Replicas
- Configuring Readable Secondary Replicas
- Configuring Client Connectivity
- Configuring Read-Only Routing
- Configuring Replicas Load Balancing
- Offloading and Impact of Reporting Workloads
- Query Performance
- Offloading Database Backups
- Limitations and Best Practices

Common Management Tasks

- Synchronization
- Availability Mode Checks/ Changes
- Add/ Remove a Database
- Add/ Remove a Replica
- Add/ remove an Availability Group
- Index Maintenance
- Keeping Statistics Current
- Memory-Optimized Tables

Monitoring and Troubleshooting Availability Groups

- Dashboard
- T-SQL
- Wait Statistics
- Performance Monitor
- Availability Group – RTO and RPO Metrics
- PowerShell
- DMVs
- Logs
- SCOM
- Common Failure Scenarios – Endpoint, Listener, Replicas and Availability Groups