SQL Server High Availability & Disaster Recovery Mastery

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London (UK)



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Ref: 20221638_142713 Duration: London (UK) Fees: 6100 GBP

Why This Course

In today's data-driven organizations, database availability and resilience are critical. This intensive 1-week program equips database professionals with advanced skills to design, implement, and manage high availability HA and disaster recovery DR solutions for SQL Server. Participants will gain hands-on experience with industry-standard technologies such as AlwaysOn Availability Groups, Failover Cluster Instances, and replication methods, ensuring business continuity and minimal downtime in critical environments.

What You'll Learn and Practice

By attending this program, you will be able to:

- Understand core SQL Server HA/DR concepts, architectures, and business requirements.
- Implement and manage AlwaysOn Availability Groups for maximum database availability.
- Configure and maintain Failover Cluster Instances FCIs and multi-subnet clusters.
- Design and execute robust backup and recovery strategies, including point-in-time recovery.
- Apply replication techniques, database mirroring, and integrated HA/DR solutions.

The Program Flow

Day 1: Introduction to SQL Server High Availability and Disaster Recovery

- HA/DR concepts and key terminology
- Overview of SQL Server HA/DR features
- Assessing business requirements for HA/DR solutions
- Planning effective HA/DR architectures

Day 2: Implementing AlwaysOn Availability Groups

- Architecture and components of AlwaysOn Availability Groups
- Configuring and managing availability groups
- Implementing read-scale availability groups for reporting
- Monitoring, troubleshooting, and maintaining availability groups



Day 3: Failover Cluster Instances and Windows Server Failover Clustering

- Failover clustering concepts and architecture
- Installing and configuring Failover Cluster Instances FCIs
- Managing and maintaining cluster nodes
- Implementing multi-subnet clustering for disaster resilience

Day 4: Backup and Recovery Strategies

- Designing effective backup strategies aligned with business requirements
- Advanced backup techniques and configurations
- Point-in-time recovery, log shipping, and database snapshots
- Recovery models and disaster recovery planning

Day 5: Replication and Additional HA/DR Techniques

- SQL Server replication architecture and types transactional, merge
- Database mirroring and log shipping
- Combining HA/DR technologies for comprehensive solutions
- Practical exercises integrating multiple HA/DR strategies

Individual Impact

Participants will leave the course with:

- The ability to design and implement robust HA/DR solutions tailored to SQL Server environments.
- Hands-on experience configuring and managing AlwaysOn Availability Groups and FCIs.
- Advanced skills in backup, recovery, and replication strategies to minimize data loss.
- Confidence in ensuring business continuity and database resilience in critical operations.

Organizational Impact

Organizations will benefit from:

- Enhanced database availability and minimized downtime.
- Improved resilience against system failures and disasters.
- Streamlined HA/DR operations with optimized SQL Server configurations.
- Teams equipped to implement best practices for mission-critical database environments.



Training Methodology

- Hands-on lab exercises for AlwaysOn Availability Groups, FCIs, and replication
- Real-world scenario simulations for backup, recovery, and disaster planning
- Case studies highlighting HA/DR challenges and solutions
- Group problem-solving and guided implementation exercises

Beyond the Course

By the end of the one week, participants will be fully prepared to:

- Implement high-availability solutions for SQL Server with confidence.
- Design disaster recovery strategies that minimize downtime and data loss.
- Integrate multiple HA/DR technologies into cohesive, business-ready solutions.
- Contribute to a resilient, high-performing database environment within their organization.

