

Building and Managing High Availability Solutions With SQL Server

Kuala Lumpur (Malaysia)

3 - 7 March 2025

UK Traininig

PARTNER



Building and Managing High Availability Solutions With SQL Server

Code: IT28 From: 3 - 7 March 2025 City: Kuala Lumpur (Malaysia) Fees: 4900 Pound

Introduction

In this course, you will learn basic aspects of High Availability as a Recovery Point Objective, Recovery Time Objective, measuring HA in percentage of time, etc. Then you will get a brief overview of HA features introduced in Windows Server 2012 R2/2016, which are relevant for SQL Server solutions - domain/domainless WFCS, cluster shared volumes, scale-out file services, storage spaces, storage replica, Hyper-V, etc. From the SQL Server perspective, the course will focus on the most popular HA/DR features - Failover Clustering and Availability Groups. Details on how to design highly available SQL Server solutions from the perspective of storage; Quorum and Failover Cluster Instance. From a practical point of view, you will learn how to maintain and troubleshoot an FCI solution

In the Availability Group part, you will learn details on how to design AG solutions with custom requirements; quorum configurations, and AG configuration sync/async, read-only routing, read-only load balancing, direct seeding, hybrid AG, etc.. Similar to Failover Cluster Instances, in the practical part you will learn how to monitor an AG solution. In addition, along the course, you will also learn about the interoperability of other SQL Server technologies with SQL Server HA - Integration Services, Analysis Services, and Reporting Services.

Course Objectives

- Build a reliable High Availability solution with Windows Server 2012 R2/2016 and SQL Server 2014/2016.
- Manage a High Availability solution with Windows Server 2012 R2/2016 and SQL Server 2014/2016.
- Build Disaster Recovery Solutions.
- Troubleshoot problems with High Availability in SQL Server 2016 and 2014.

Course Outlines

Day 1: Introduction to High Availability

- Basic aspects of High Availability.
- Windows Server 2016 High Availability Features Overview.
- Overview of HA features in Windows Server 2016.
- SQL Server 2016 High Availability Features Overview.
- Failover Cluster Instances.
- Availability Group.
- Log Shipping.

Day 2: Windows Server 2016 Failover Clustering

- Installation.
- Storage configuration.



- The configuration of which.
- Maintenance.
- Patching/Upgrading.
- Adding/Removing nodes to/from cluster.
- Monitoring.
- Troubleshooting.

Day 3: SQL Server 2016 Failover Clustering Instance

- SQL Server FCI configuration.
- Active/Active.
- Active/Passive.
- MS DTC.
- Maintenance.
- Patching/Upgrading.
- o Adding/Removing SQL Server to/from cluster.
- Monitoring.
- Troubleshooting.

Day 4: SQL Server 2016 Availability Groups

- SQL Server AG configuration.
- Sync/Async.
- Read Only Routing and Load Balancing.
- Direct seeding.
- Distributed AG.
- Maintenance.
- Patching/Upgrading.
- Adding/Removing files to/from the database in AG.
- Adding/Removing database to/from AG.
- Monitoring.
- Troubleshooting.

Day 5: SQL Server Interoperability

- Interoperability.
- with Integration Services.
- with Analysis Services.
- with Reporting Services.



Blackbird Training Cities

Europe



Malaga (Spain)



Sarajevo (Bosnia and Herzegovina)



Oporto (Portugal)



Glasgow (Scotland)



Edinburgh (UK)



Oslo (Norway)



Anney (France)



Bordeaux (France)



Copenhagen (Denmark)



Birmingham (UK)



Lyon (France)



Moscow (Russia)



Stockholm (Sweden)
(Netherlands)



Podgorica (Montenegro)



Batumi (Georgia)



London (UK)



Istanbul (Turkey)



Amsterdam



Düsseldorf (Germany)



Paris (France)



Barcelona (Spain)



Munich (Germany)



Geneva (Switzerland)



Prague (Czech)



Vienna (Austria)



Rome (Italy)



Brussels (Belgium)



Madrid (Spain)



Berlin (Germany)



Lisbon (Portugal)



Zurich (Switzerland)



Manchester (UK)



Milan (Italy)



Blackbird Training Cities

USA & Canada



Los Angeles (USA)



Orlando, Florida (USA)



Online



Phoenix, Arizona (USA)



Houston, Texas (USA)



Boston, MA (USA)



Washington (USA)



Miami, Florida (USA)



New York City (USA)



Seattle, Washington (USA)



Washington DC (USA)



In House



Jersey, New Jersey (USA)



Toronto (Canada)

Africa



Baku (Azerbaijan)
(Thailand)



Maldives (Maldives)



Doha (Qatar)



Manila (Philippines)



Bali (Indonesia)



Bangkok



Beijing (China)



Singapore (Singapore)



Sydney (Australia)



Tokyo (Japan)



Jeddah (KSA)



Riyadh (KSA)



Dubai (UAE)



Kuala Lumpur (Malaysia)



Kuwait City (Kuwait)



Pulau Ujong (Singapore)



Jakarta (Indonesia)



Amman (Jordan)



Beirut (Lebanon)



Blackbird Training Cities

Asia



Kigali (Rwanda)



Cape Town (South Africa)



Accra (Ghana)



Lagos (Nigeria)



Marrakesh (Morocco)



Nairobi (Kenya)



Zanzibar (Tanzania)



Tangier (Morocco)



Cairo (Egypt)



Sharm El-Sheikh (Egypt)



Casablanca (Morocco)



Tunis (Tunisia)



Blackbird Training Clients



UK Training
PARTNER



Blackbird Training Categories

Management & Admin

Professional Skills
Finance, Accounting, Budgeting
Media & Public Relations
Project Management
Human Resources
Audit & Quality Assurance
Marketing, Sales, Customer Service
Secretary & Admin
Supply Chain & Logistics
Management & Leadership
Agile and Elevation

Technical Courses

Hospital Management
Public Sector
Special Workshops
Oil & Gas Engineering
Telecom Engineering
IT & IT Engineering
Health & Safety
Law and Contract Management
Customs & Safety
Aviation
C-Suite Training



BLACKBIRD
FOR TRAINING

 International House 185 Tower Bridge
Road London SE1 2UF United Kingdom

 +44 7401 1773 35
+44 7480 775526

 Sales@blackbird-training.com

 www.blackbird-training.com

