55353 Administering a SQL Database Infrastructure

Category: Software Development & Programming | **Vendor:** Microsoft

Duration: 40.00 hours (5 days) **32.5 CPD Hours** **Rating:** ⭐ 4.6 (5,878 reviews)

Course Information

Delivery Format: Instructor Led - Online

Course Overview

This five-day instructor-led course provides students who administer and maintain SQL Server databases with the knowledge and skills to administer a SQL server database infrastructure. Additionally, it will be of use to individuals who develop applications that deliver content from SQL Server databases.

About This Course

This five-day instructor-led course provides students who administer and maintain SQL Server databases with the knowledge and skills to administer a SQL server database infrastructure. Additionally, it will be of use to individuals who develop applications that deliver content from SQL Server databases.

Who Should Attend

The primary audience for this course is individuals who administer and maintain SQL Server databases. These individuals perform database administration and maintenance as their primary area of responsibility, or work in environments where databases play a key role in their primary job. The secondary audiences for this course are individuals who develop applications that deliver content from SQL Server databases.

Prerequisites & Entry Requirements

General Prerequisites:

- Basic knowledge of the Microsoft Windows operating system and its core functionality.
- Working knowledge of Transact-SQL.
- Working knowledge of relational databases.
- Some experience with database design.

Learning Outcomes

Upon successful completion of this course, participants will be able to:

Authenticate and authorize users Assign server and database roles Authorize users to access resources Protect data with encryption and auditing Describe recovery models and backup strategies Backup SQL Server databases Restore SQL Server databases Automate database management Configure security for the SQL Server agent Manage alerts and notifications Managing SQL Server using PowerShell Trace access to SQL Server Monitor a SQL Server infrastructure Troubleshoot a SQL Server infrastructure Import and export data

Detailed Course Outline

1 - SQL Server Security

- Authenticating Connections to SQL Server
- Authorizing Logins to Connect to databases
- Authorization Across Servers
- Partially Contained Databases

2 - Assigning Server and Database Roles

- Working with server roles
- Working with Fixed Database Roles
- Assigning User-Defined Database Roles

3 - Authorizing Users to Access Resources

- Describe and use server roles to manage server-level security.
- Describe and use fixed database roles.
- Use custom database roles and application roles to manage database-level security. **4 - Protecting Data with Encryption and Auditing**
    - Options for auditing data access in SQL Server
    - Implementing SQL Server Audit
    - Managing SQL Server Audit
    - Protecting Data with Encryption

5 - Recovery Models and Backup Strategies

- Understanding Backup Strategies
- SQL Server Transaction Logs
- Planning Backup Strategies

6 - Backing Up SQL Server Databases

- Backing Up Databases and Transaction Logs
- Managing Database Backups
- Advanced Database Options

7 - Restoring SQL Server Databases

- Understanding the Restore Process
- Restoring Databases
- Advanced Restore Scenarios
- Point-in-Time Recovery

8 - Automating SQL Server Management

- Automating SQL Server management
- Working with SQL Server Agent
- Managing SQL Server Agent Jobs
- Multi-server Management

9 - Configuring Security for SQL Server Agent

- Understanding SQL Server Agent Security
- Configuring Credentials

- Configuring Proxy Accounts

10 - Monitoring SQL Server with Alerts and Notifications

- Monitoring SQL Server Errors
- Configuring Database Mail
- Operators, Alerts, and Notifications
- Alerts in Azure SQL Database

11 - Introduction to Managing SQL Server by using PowerShell

- Getting Started with Windows PowerShell
- Configure SQL Server using PowerShell
- Administer and Maintain SQL Server with PowerShell
- Managing Azure SQL Databases using PowerShell

12 - Tracing Access to SQL Server with Extended events

- Extended Events Core Concepts
- Working with Extended Events

13 - Monitoring SQL Server

- Monitoring activity
- Capturing and Managing Performance Data
- Analyzing Collected Performance Data
- SQL Server Utility

14 - Troubleshooting SQL Server

- A Trouble Shooting Methodology for SQL Server
- Resolving Service Related Issues
- Resolving Connectivity and Log-in issues

15 - Importing and Exporting Data

- Transferring Data to and from SQL Server
- Importing and Exporting Table Data
- Using bcp and BULK INSERT to Import Data
- Deploying and Upgrading Data-Tier Application

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SQL Server Security

- Authenticate logins and authorize users to access databases
- Configure SQL Server login options
- Authorization across servers and partially contained databases

Assigning Server and Database Roles

- Understand fixed and custom database roles
- Assign and manage server roles

Authorizing Users to Access Resources

- Use database roles and application roles
- Implement role-based access to secure data

Protecting Data with Encryption and Auditing

- Configure SQL Server Audit and manage audit logs
- Encrypt sensitive data and enforce auditing policies

Recovery Models and Backup Strategies

- Understand backup strategies for transactional integrity
- Plan SQL Server recovery using appropriate models

Backing Up SQL Server Databases

- Perform full and differential database backups
- Manage backup files and automate backup jobs

Restoring SQL Server Databases

- Use restore options and perform point-in-time recovery
- Handle advanced restore scenarios

Automating SQL Server Management

- Configure SQL Server Agent for scheduled jobs
- Automate repetitive tasks using job steps and notifications

Configuring Security for SQL Server Agent

Set up credentials, proxies, and secure agent access

Monitoring with Alerts and Notifications

- Create operators and configure alerting
- Monitor Azure SQL Database events and performance

Managing SQL Server with PowerShell

- Use PowerShell to configure SQL Server
- Administer and maintain SQL Server infrastructure
- Manage Azure SQL using PowerShell

Tracing Access with Extended Events

- Capture login and query activity
- Use Extended Events to analyze SQL Server performance

Monitoring SQL Server

- Monitor usage metrics and server performance
- Analyze collected data using SQL Server Utility

Troubleshooting SQL Server

- Resolve service, login, and connectivity issues
- Apply a troubleshooting methodology for performance

Importing and Exporting Data

- Import and export data using BCP and BULK INSERT
- Deploy and manage data-tier applications

Upcoming Schedule

Available training dates for 55353 Administering a SQL Database Infrastructure:

Start Date	End Date	Location	Delivery	Price
14 Dec 2026	18 Dec 2026	Online	Virtual	€2,995.00

Additional Course Details

Nexus Humans 55353 Administering a SQL Database Infrastructure training program is a workshop that presents an invigorating mix of sessions, lessons, and masterclasses meticulously crafted to propel your learning expedition forward.

This immersive bootcamp-style experience boasts interactive lectures, hands-on labs, and collaborative hackathons, all strategically designed to fortify fundamental concepts.

Guided by seasoned coaches, each session offers priceless insights and practical skills crucial for honing your expertise. Whether you're stepping into the realm of professional skills or a seasoned professional, this comprehensive course ensures you're equipped with the knowledge and prowess necessary for success.

While we feel this is the best course for the 55353 Administering a SQL Database Infrastructure course and one of our Top 10 we encourage you to read the course outline to make sure it is the right content for you.

Additionally, private sessions, closed classes or dedicated events are available both live online and at our training centres in Dublin and London, as well as at your offices anywhere in the UK, Ireland or across EMEA.

Frequently Asked Questions

Q: What delivery options are available for 55353 Administering a SQL Database Infrastructure?

We offer multiple delivery formats:

- Live Instructor-Led Classroom Online (Virtual/Live Online)
- Traditional Instructor-Led Classroom Training (ILT)
- On-site delivery at your offices anywhere in United Kingdom
- Private dedicated courses customized for your team

Q: How many CPD hours does this course provide?

The 5-day 55353 Administering a SQL Database Infrastructure course provides up to 32.5 CPD hours of structured learning. CPD certificates can be provided upon request.

Q: What is the duration of the 55353 Administering a SQL Database Infrastructure training?

The training takes place over 5 day(s), with each day lasting approximately 40.00 hours including breaks for lunch and refreshments.

Q: Do you provide corporate training for 55353 Administering a SQL Database Infrastructure?

Yes, we provide corporate training, dedicated training, and closed classes for 55353 Administering a SQL Database Infrastructure. Training can take place anywhere in United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online allowing teams from across United Kingdom or internationally to attend.

Q: Why choose Nexus Human for 55353 Administering a SQL Database Infrastructure?

Nexus Human is recognized as one of the leading training providers. Our trainers have won multiple awards including:

- Small Firms Best Trainer Award
- National Training Partner of the Year (Ireland) - Multiple Years
- Global Top 30 Instructor Awards (2012, 2019, 2021)
- Tech Excellence Award Nominations
- Learning Performance Institute (LPI) External Training Provider Sponsor 2024

Q: Are there any discount codes available?

Yes! Use discount code **PENPAL5** when booking your 55353 Administering a SQL Database Infrastructure training. Please note that only one discount code can be used per booking and cannot be combined with other special offers.

Nexus Human

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