

KOENIG SOLUTIONS • COURSE OUTLINE

Administering Microsoft SQL Server 2014 Databases

Learn to install, configure, secure, back up and monitor SQL Server 2014 databases, including automation and maintenance tasks.

13

MODULES

46

TOPICS

13

HANDS-ON LABS

COURSE OVERVIEW

This course covers SQL Server database administration starting with installation and configuration, then moves into managing storage for system and user databases. It addresses planning backup strategies, restoring databases, and importing and exporting data, followed by monitoring and tracing server activity. The course also covers managing security, auditing data access, encrypting data, performing ongoing maintenance, and automating SQL Server management with notifications and alerts.

WHO THIS COURSE IS FOR

Database Administrators

Database Developers

System Administrators

IT Professionals

LEARNING OBJECTIVES

- Describe SQL Server database administration tools and techniques
- Plan and configure a SQL Server installation
- Configure storage for system and user databases
- Plan and implement a database backup strategy
- Restore databases including point-in-time recovery scenarios
- Import, export and transfer data between databases
- Monitor SQL Server performance using dynamic management views
- Manage SQL Server security, auditing and data encryption

13 Modules, 46 Topics

01

Lab

Introduction to SQL Server Database Administration

TOPICS

Database Administration Overview · Introduction to the SQL Server Platform · Database Management Tools and Techniques

02

Lab

Installing and Configuring SQL Server

TOPICS

Planning SQL Server Installation · Understanding Sets · Post Installation Configuration

03

Lab

Working with Databases and Storage

TOPICS

Introduction to Data Storage with SQL Server · Managing Storage for System Databases · Managing Storage for User Databases · Moving Database Files · Configuring the Buffer Pool Extension

04

Lab

Planning and Implementing a Backup Strategy

TOPICS

Understanding SQL Server Recovery Models · Planning a Backup Strategy · Backing up Databases and Transaction Logs · Using Backup Options · Ensuring Backup Reliability

05

Lab

Restoring SQL Server Databases

TOPICS

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

06

Lab

Importing and Exporting Data

TOPICS

Introduction to Transferring Data · Importing and Exporting Data · Copying or Moving a Database

07

Lab

Monitoring SQL Server

TOPICS

Introduction to Monitoring SQL Server · Dynamic Management Views and Functions · Performance Monitor

08

Lab

Tracing SQL Server Activity

TOPICS

Tracing SQL Server Workload Activity · Using Traces

09

Lab

Managing SQL Server Security

TOPICS

Introduction to SQL Server Security · Managing Server-Level Security · Managing Database-Level Principals · Managing Database Permissions

10

Lab

Auditing Data Access and Encrypting Data

TOPICS

Auditing Data Access in SQL Server · Implementing SQL Server Audit · Encrypting Databases

11

Lab

Performing Ongoing Database Maintenance

TOPICS

Ensuring Database Integrity · Maintaining Indexes · Automating Routine Database Maintenance

12

Lab

Automating SQL Server Management

TOPICS

Automating SQL Server Management · Implementing SQL Server Agent Jobs · Managing SQL Server Agent Jobs · Managing Job Step Security Contexts · Managing Jobs on Multiple Servers

13

Lab

Monitoring SQL Server with Notifications and Alerts

TOPICS

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

HANDS-ON LABS

Practise What You Learn

#	MODULE	ACTIVITY
01	Introduction to SQL Server Database Administration	Using SQL Server Administrative Tools
02	Installing and Configuring SQL Server	Installing SQL Server
03	Working with Databases and Storage	Managing Database Storage
04	Planning and Implementing a Backup Strategy	Backing Up Databases

#	MODULE	ACTIVITY
05	Restoring SQL Server Databases	Restoring SQL Server Databases
06	Importing and Exporting Data	Importing and Exporting Data
07	Monitoring SQL Server	Monitoring SQL Server
08	Tracing SQL Server Activity	Tracing SQL Server Workload Activity
09	Managing SQL Server Security	Managing SQL Server Security
10	Auditing Data Access and Encrypting Data	Auditing Data Access and Encrypting Data
11	Performing Ongoing Database Maintenance	Performing Ongoing Database Maintenance
12	Automating SQL Server Management	Automating SQL Server Management
13	Monitoring SQL Server with Notifications and Alerts	Using Notifications and Alerts

WHAT IS INCLUDED

Everything You Need to Succeed

- Koenig course material for every module
- Delivery by certified instructors and subject matter experts
- Hands-on exercises throughout the course
- Course completion certificate from Koenig

ABOUT KOENIG

Who We Are

Established in 1993, Koenig Solutions is a globally recognised training provider with 35+ technology partnerships, 5,000+ training programmes and a network of certified instructors and subject matter experts, supporting individuals and enterprise teams worldwide.

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