



Querying Microsoft SQL Server

LF UTF-8 JavaScript 0 files
DM101

36
Academic Hours

Querying Microsoft SQL Server

Outline

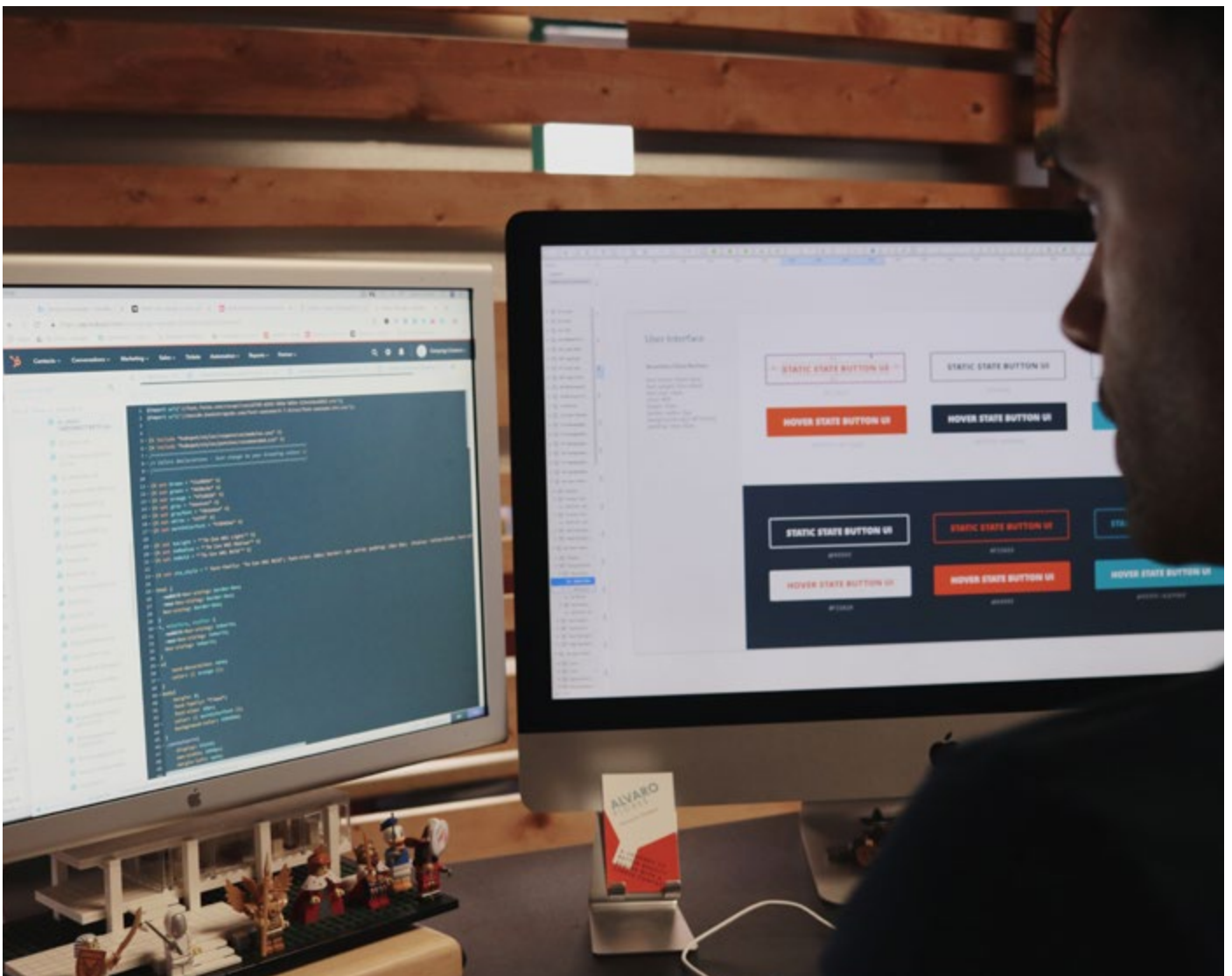
This 36-hours instructor led course provides students with the technical skills required to write basic Transact-SQL queries for Microsoft SQL Server 2014 and basic database administration. This course is the foundation for Database Administration and Database Development.

The primary target audience for this course are employees with basic database skills



Prerequisites

- Understanding the concept of database
- Basic knowledge of the Microsoft Windows operating system and its core functionality





Content

Module 01

Introduction to Microsoft SQL Server 2014

- .editions
- .versions
- .tools used to query
- .documentation sources
- .the logical structure of databases

Module 02

Introduction to T-SQL Querying

- .basic structure of T-SQL queries
- .logical flow of a SELECT statement
- concepts introduction: predicates and set-based operations

Module 03

Writing SELECT Queries

- .fundamentals of the SELECT statement
- .queries against a single table

Module 04

Querying Multiple Tables

- use of JOINS in T-SQL queries as a mechanism for
- .retrieving data from multiple tables

Module 05

Sorting and Filtering Data

- enhance queries to limit the rows they-
- .return
- control the order in which the rows are-
- displayed
- .how to resolve missing and unknown results-

Module 06

Working with SQL Server 2014 Data Types

- data types SQL Server-
- .types of numeric and special-use data types-
- .conversions between data types
- .importance of type precedence -

Module 07

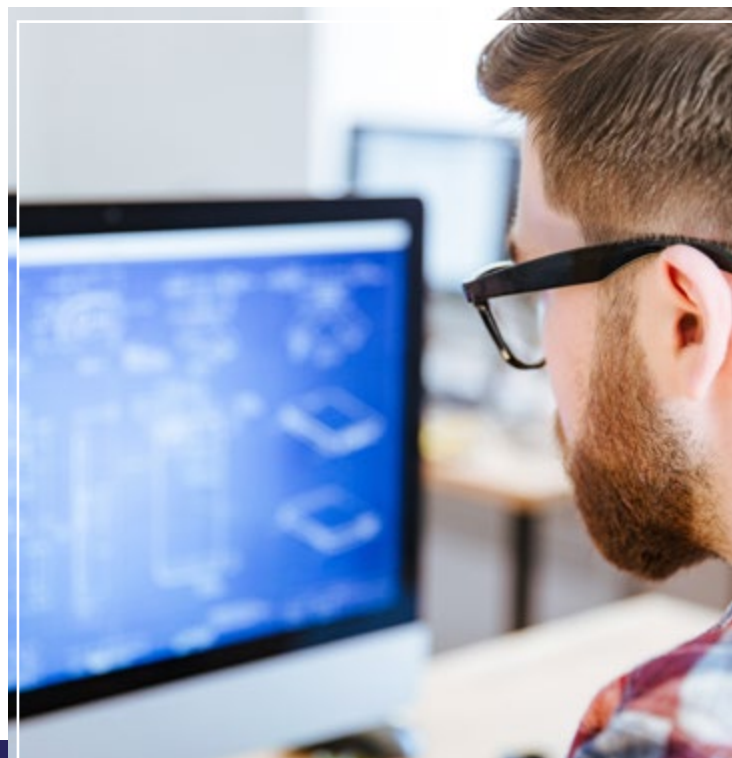
Using DML to Modify Data

- .perform inserts
- .updates
- . deletes

Module 08

Using Built-In Functions

- .data type conversion
- testing for logical results
- .nullability



Module 09

Grouping and Aggregating Data

grouping data
aggregating the grouped data
. filtering groups with HAVING

Module 10

Using Subqueries

use of subqueries in various parts of a
.SELECT statement
use of scalar
,multi-result subqueries
.use of the IN and EXISTS operators

Module 11

Using Table Expressions

,views
,derived tables
common table expressions
.inline table-valued functions

Module 12

Querying data with Stored Procedures

,use of EXECUTE
how to pass input and output parameters to a
,procedure
.how to invoke system stored procedures

Module 13

Implementing Transactions

concepts of transaction management in SQL-
Server
,transaction properties-
marking transactions with BEGIN, COMMIT and-
.ROLLBACK

Module 14

Introduction to SQL Server 2014 Database Administration

Database Administration Overview |

| Introduction to the SQL Server Platform |

Database Management Tools and Techniques

Module 15

Installing and Configuring SQL Server 2014

| Planning SQL Server Installation

| Installing SQL Server 2014

| Post-Installation Configuration

Module 16

Working with Databases and Storage

| 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

Module 17

Planning and Implementing a Backup Strategy

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

Module 18

Restoring SQL Server 2014 Databases

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

Module 19

Importing and Exporting Data

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

Module 20

Managing SQL Server Security

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



This course is the foundation for **Database Administration** and **Database Development**.



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