

Microsoft SQL Data Models Development (70-768)

This MCSA: Business Intelligence training covers how to design models and queries for managing business intelligence data with SQL 2016. Learn to implement multidimensional data models, OLAP cubes, and tabular models. Gain expertise in SQL Server Analysis Services (SSAS) and querying with MDX and DAX. This Microsoft SQL course can be used for onboarding new data analysts, or as a Microsoft reference resource.

[CBT Nuggets course material](#) →

WEEK 1

Microsoft SQL: Data Modeling

153 min.

Welcome to 70-768 Developing SQL Data Models	2
Introducing SSAS and Data Modeling	6
Getting SSAS (SSDT)	7
Dimensions and Measures	4
Multidimensional Data Sources and Views	13
Designing Dimensions for Multidimensional Models	10
Building a Cube	6
Using Your Cube in Power BI	4
Fact Dimensions	11
Parent-Child Dimensions	5
Referenced Dimensions	7
Slowly Changing Dimensions	8
Introducing Hierarchies (Attribute Relationships)	7
Implementing Attribute Relationships	9
Multidimensional Dimension Types	9
Multidimensional Measures and Measure Groups	8
Multidimensional Calculations and Aggregations	7
Introducing Tabular Modeling	9
Introducing Tabular Measures and DAX	6
Tabular Relationships	8
Hierarchies	4
Tabular Partitions	3

WEEK 2

151 min.

Implementing Tabular Partitions	5
Perspectives	5

Calculated Columns	5
Tabular DirectQuery vs. In-Memory	6
Automating Scheduled Refreshes	9
Managing Users and Permissions	4
Row Level Security	3

Microsoft SQL: MDX and DAX

Overview	1
Introducing Multidimensional Expressions (MDX)	6
MDX Rows, Columns, Members, and Sets	9
Understanding Tuples	4
Tuple Sets	5
Introducing MDX Functions with MEMBER	5
ORDER and HEAD Functions	6
Handling Nulls in MDX	2
MDX FILTER Function	3
Navigation with DESCENDANTS	5
Time Functions	3
WITH Clause	4
MDX AGGREGATE Function	3
Logical Functions in MDX	3
Introducing Data Analysis Expressions (DAX)	3
DAX Studio and EVALUATE	9
Formatting Results with ORDER and FILTER	5
Grouping Aggregations with SUMMARIZECOLUMNS	9
Basic DAX Calculations	6
Custom Measures, Variables, and Tables Using DEFINE	4
Introducing Iterator (X) Calculations	4
Implementing Iterator (X) Functions	3

Basic Logical Functions in DAX	6
SWITCH Logical Function	2
Variables (VAR)	3

WEEK 3

69 min.

CALCULATE Function	4
Date and Time Functions	4
Ranking Data with RANKX	3

Microsoft SQL: SSAS Tuning

Overview	1
File and Disk Layouts	4
Multidimensional Memory Limits	5
Configuring Multidimensional Memory Limits	3
Tabular Memory Limits	4
Understanding NUMA	4
Configuring Affinity	3
Understanding SSAS Clustering	4
Multidimensional Query Plans	3
Tracing a Multidimensional Query	6
Tabular Query Plans	3
Tracing a Tabular Query	5
Performance Monitoring	7
KPIs	4