

HC-465: Hands On MDX with SQL Server 2005 Analysis Services

Overview

BI solution developers, report designers and administrators of Analysis Services applications have many opportunities to use MDX expressions to enhance the analytic ability of an application. This course provides these professionals with the knowledge and skills to create and use MDX expressions and queries for Analysis Services cubes. At the end of the course, the student should feel confident in developing MDX expressions, formulas, KPIs, calculations and queries and will take home many useful, real-world examples to adapt to their own environments.

Audience

This course is targeted to database developers and architects, Business Intelligence solution developers, report designers and business analysts such as financial planners, marketing analysts, cost accountants and the like.

Prerequisites

Before beginning this course, students should have:

- An understanding of basic database design, administration, and implementation concepts.
- Understanding of basic OLAP database concepts in SQL Server 2005 Analysis Services, including:
- Creating databases, dimensions, and cubes.
- Creating simple calculated members.
- Working with shared and private dimensions.
- Processing a cube.
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Duration

3 Days

Course Outline

Day 1 - Purpose and role of MDX

- General introduction to MDX including side-by-side demonstrations comparing MDX with SQL for queries, and MDX with Excel for formulas.
- MDX Fundamental Concepts
- Hands-on introduction to the basic tools for working with MDX: using the BI Development Studio to create calculated members and using Management Studio to create SQL queries.
- Set-Based Queries
- In-depth examination of the power of using sets to build MDX queries, including new SQL 2005 functionality such as sub cubes, sub queries, and working with AutoExists behaviour between attributes.

Day 2 - Tuple-Based Expressions

- Set-Based Expressions
- Exploration of formulas that are based on ranges of values, including year-to-date calculations, rolling time calculations, and statistical calculations.
- Scripting and Formulas
- Exploration of new script commands, including replacing IIF constructs with sub cube expressions, and controlling automatic cell calculation behaviour.
- Advanced Expression Applications
- Several examples of complex expressions, including the use of expressions in bubble-up formatting, creating dynamic security, and creating KPI calculations.

Day 3 - Reporting Services and MDX Secrets

- *Reporting Services*
Secrets on how to use Reporting Services effectively with an Analysis Services cube as the data source, including managing non-additive measures and using extended cell properties such as server-based formatting.
- *Query Secrets*
Secrets for how to build effective queries, including hiding empty values efficiently and working with various attribute and hierarchy relationships.
- *Calculated Member Secrets*
Secrets for how to build effective calculations, including ways to make trade-off decisions between formulas and effective cube design

For more information and details on course schedules please contact:

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