SSAS 2014, Part 01 of 10: Basics and Tools

Meet the expert: Using Microsoft SQL Server started for Thomas with a Laboratory Information System in version 6.5. The Analysis Service (also called SSAS) option in version 7 got him excited about Data Warehousing, but before he used a production version of SSAS, he became a Database Administrator for versions 6.5 through 2005 while working at a paper mill and home health agency. After writing reports as an application developer for 10 years, he rediscovered Online Analytical Processing (OLAP) implemented into Data Warehouses. Since 2009, he has become a speaker in the SQL Server community and a voice for Microsoft Business Intelligence (MSBI) for enterprises. His transition from Sr. DBA to a Business Intelligence Architect has been a great career path. Thomas has certifications MCP, MCDBA and MCITP in Database Administration and Business Intelligence.

Prerequisites: This course does not require any prior experience with Analysis Server. It is assumed that students have working experience with SQL Server; basic relational database concepts (e.g., tables, queries, and indexing); data transformation services.

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Course description: In this course, you will learn how to use Microsoft SQL Server 2014 Analysis Services (SSAS). This course includes concepts, procedures and practices based on real-world experience giving both the novice and experienced SQL Server developer the tools to build data warehousing and decision support system solutions.

Course outline:

The Data Warehouse Model
- Introduction
- Good Requirements Gathering
- Questions You Might Hear
- Requirements Documentation
- Attribute/Measure Matrix
- Summary

Basics of Dimensional Modeling
- Introduction
- Why Use a Data Warehouse?
- Dimensional Modeling
- Needed Entities
- Dimensional Model
- Demo: Build Dimensional Model
- Demo: Dimensional Model Setup
- Summary

Dimensions and Facts
- Introduction
- Dimensions
- Understanding Dim. Modeling
- Product Dimension
- Sales Territory Dimension
- Understanding Fact Tables
- Understanding Dim. Modeling
- 3 Possible Fact Tables
- Demo: Dimensional Model
- Demo: Add Columns
- Summary

Using SQL Server Data Tools
- Introduction
- Understanding SSDT Interface
- Develop Multidimensional Cube
- Demo: SQL Server Data Tools
- Demo: New Cube
- Demo: New Cube and Database
- Demo: Manual Dimension Creation
- Demo: Generate Schema
- Maintaining Data
- Summary

What Is MSBI
- Introduction
- Microsoft BI Stack
- Analysis Services 2014
- Why Use Analysis Services
- Build a SSAS Database
- Model Definitions
- UDM & BISM
- Fact & Dimensions Tables
- Star Schema
- Snowflake Schema
- Product Dimension
- MSBI Future
- Deploy and View a Cube
- Deploy a Cube with SSDT
- Sample Databases
- Viewing Cube in Excel
- Summary

MSBI Demo
- Introduction
- Demo: SQL Server Data Tools
- Demo: Data Source Viewer
- Demo: Analyze in Excel
- Summary