

#### **Delegate Pre-Requisites**

Delegates should be familiar with Relational Database Management Systems such as SQL Server, but not familiar with OLAP technologies

#### **Course Duration**

This is a Three Day Course

#### **Course Details**

Courses commence at 9:30 a.m. through to 4:30 p.m.

A laptop computer is provided for each delegate attending on this packed programme to try out the tips and techniques demonstrated

All delegates will receive comprehensive Training Courseware to refer to during the course, together with a Course Attendance Certificate

#### Schedule Courses

Off-site scheduled courses are available at a location near you - this course is available on our current programme - call our team for more details

#### **Corporate Courses**

On-site Corporate courses are available - you provide the Conference Room ... we bring everything else!

#### **Modular Courses**

Bite-sized 'modular' courses are available where you can build your own day course covering the topics that suit you - these are half day modules that you can mix and max



FAST TRACK

# **SQL Server Analysis Services**

### **Target Audience**

The course introduces SSAS as a tool to store data in a cube format and is designed for people who are familiar with Relational Database Management Systems such as SQL Server, but not familiar with OLAP technologies. It covers the concepts of designing and implementing a data cube for better analysis of business data

### The Content

#### Introduction to Data Warehousing & BI

- Defining Data Warehouse and Business Intelligence (BI)
- \* Understanding the requirements for BI
- \* Overview of Data Mining

#### Building and Modifying an OLAP Cube

- \* Designing a Unified Dimension Model (UDM)
- \* Identifying measures and their suitable granularities
- \* Adding new measure groups and creating custom measures
- Creating dimensions
- Implementing a Star and Snowflake Schema
- \* Identifying role-play dimensions
- Adding dimension attributes and properties

#### Extending the Cube with Hierarchies

- \* Creating hierarchies
- Building natural hierarchies and creating attribute relationships
- Discretising attribute values with the Clusters and Equal Areas algorithms
- \* Parent-child relationships
- \* Defining parent and key attributes

#### Exploiting Advanced Dimension Relationships

- \* Storing dimension data in fact tables
- \* Building a degenerate dimension
- \* Configuring fact relationships
- \* Saving space with referenced dimension relationships
- \* Identifying candidates for referenced relationships
- \* Utilising the Dimension Usage tab to configure referenced relationships
- Including dimensions with many-to-many relationships
- \* Implementing intermediate measure groups and dimensions
- Reporting on many-to-many dimensions without double counting

#### Managing Cubes

- \* Designing storage and aggregations
- \* ROLAP, MOLAP, HOLAP
- \* Partitioning cubes for improved performance
- \* Designing aggregations with Aggregation Design Wizard
- Leveraging Usage-Based Optimisation Wizard
- \* Automating processing and deployment
- \* Exploiting XMLA scripts and SSIS

# Refreshing cubes with Proactive Caching Performing Advanced Analysis with MDX

- \* Retrieving data with MDX
- \* Defining tuples, sets and calculated members
- \* Querying cubes with MDX
- Monitoring business performance with KPIs
- \* Building goal, status and trend expressions
- Using PARALLELPERIOD to compare past time periods
- Simplifying KPI definitions using KPIValue and KPIGoal
- \* Enhancing cubes with MDX
- \* Adding runtime calculations to the cube
- \* Adding drill-through and URL actions

## Gaining Business Advantage with Data Mining

- \* Determining the correct model
- Identifying business tasks for data mining
- \* Training and testing data-mining algorithms
- \* Comparing algorithms with the accuracy chart
- \* Performing real-world predictions
- \* Classifying with Decision Trees, Neural Network and Naive Bayes algorithms
- \* Predicting with the Time Series algorithm

## Call our team 01527 836840

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