SQL SERVER ANALYSIS SERVICES

(SSAS)

LIVE Online Training

Complete Practical & Real-time Training Sessions

SQL School™

Quality Training Assured

A Unit of SequelGate Innovative Technologies Pvt. Ltd.

→ ISO Certified Training Institute → Microsoft Certified Partner

Training Highlights

- ✓ **Complete Practical and Real-time Scenarios**
- ✓ **Session wise Material and Practice Labs**
- ✓ **Session wise Notes & Doubts Clarifications**
- ✓ **Certification Material & Resume Preparation**
- ✓ **24x7 LIVE Server Access with Real-time Databases**
- ✓ **Interview Preparation and Guidance**
- ✓ **Technical Support and Placements Assistance**
- ✓ **One Real-time Project and FAQs with Answers**
- ✓ **Mock Interview and Course Completion Certificate**

All Training Sessions are Completely Practical & Real-time

Study & Practice Material Included. Course includes 13 Sessions & One Real-time Project.

Course Fee: INR 7000/- (USD 120$)

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CREDITS: ISO Certified Learning Center. Microsoft Certified Learning Partner. www.sqlschool.com

Session 1: INTRODUCTION TO SSAS & CONFIGURATION

- ✓ Installation & Configuration: SSAS 2014, 2016
- ✓ Need for SSAS Component & Tools - Modes
- ✓ Multidimensional Mode: Purpose, Properties,Usage
- ✓ Tabular Mode: Purpose, Properties, Usage (ROLAP)
- ✓ Power Pivot Mode: Purpose, Properties (Overview)
- ✓ Configuring Multidimensional Mode Instances
- ✓ Configuring Tabular Modes Instances and Tests
- ✓ Understanding Multidimensional Databases (OLAP)
- ✓ SSAS Service Accounts & Usage. SQL Browser
- ✓ SSDT Tool: SQL Server Data Tools – SSDT / VS
- ✓ SSDT 2015 Installation and SSAS Templates
- ✓ SSDT 2013 Installation and SSAS Templates
- ✓ SSAS Developer Environment (SSDT) Interface
- ✓ SSAS Training - Lab Plan, Resources & Databases
- ✓ OLAP DB Introduction: Measure Groups, Measures
- ✓ Attributes, Hierarchy Levels and Members. Cube
- ✓ Need for MDX Language: Queries and Expressions

Video 2: BASIC CUBE DESIGN WITH SSAS, EXCEL

- ✓ Identifying Analysis Entities in OLAP Database
- ✓ Need for OLAP Databases and Cubes @ Analysis
- ✓ Implementing Kimball & Inmon Methods Of BI –
- ✓ A Real-world Sales Scenario - Cube Design
- ✓ Analysis Requirements & Entities – Measures
- ✓ Basic SSAS Entities: Sources, Destinations
- ✓ Data Source, Data Source View, Cube Designer
- ✓ Dimension Wizard and Attributes. DEPLOYMENT
- ✓ PROCESS of OLAP Cube. Online Deployment
- ✓ Cube Browsing using SSMS & ADOMD Client
- ✓ Excel Connections for SSAS DBs & Cube Access
- ✓ Excel PIVOT Tables and Basic Chart Report
- ✓ Pie-chart Reports and Attribute Filters. Usage
- ✓ Microsoft Excel for OLAP Cube Access Filters
- ✓ Common Deployment Errors : Logon Failures
- ✓ Impersonation Account - NT ATHORITY Account
- ✓ End to End Implementation- Basic Example

Video 3: CUBE DESIGN: ATTRIBUTES and HIERARCHIES

- ✓ Cube Design with Attributes, Keys and Relations
- ✓ Data Source View : Entities, Relations and Filters
- ✓ Database Dimensions : Identification and Purpose
- ✓ Cube Dimensions : Identification and Purpose
- ✓ Connection Strings for SQL Server Data Sources
- ✓ Named Queries & Calculations in Data Source View
- ✓ DSV Entities : Data Explore Options. Verifications
- ✓ Expressions in DSV Entities. Named Calculations
- ✓ Cube as a Subject Oriented OLAP Database Object
- ✓ Cube Access Methods and Browsers in SSMS,SSDT
- ✓ Cube Access: Excel, SSRS, Power BI, Tableau, etc
- ✓ MDX Filters and Pivot Reports in Microsoft Excel
- ✓ Conditional and Table Formatting Styles @ Excel
- ✓ Cell Styles & Formatting Options. ODC Connections
- ✓ Enabling Caching. Reusing ODC Connection Filters
- ✓ Backend Access to Business Data. Frontend Access
- ✓ Cube Browser in SSDT & SSMS. Cube Drilldowns
- ✓ Hierarchies : Attribute Levels and Access Options
- ✓ Hierarchies for Easy Access. Drill-down Reports
- ✓ Performance Warnings, Missing Attribute Relations
- ✓ Composite Attribute Keys, Members & Hierarchies
- ✓ Deployment Errors - Duplicate Attribute Keys

Video 4: MDX QUERIES & EXPRESSIONS

- ✓ MDX: Multidimensional Expression Language
- ✓ MDX Syntax - Cube Data into ROWS, COLUMNS
- ✓ Advantages of MDX: Reports, Cube Writebacks
- ✓ MDX for Cube Design, KPIs, Actions, Security
- ✓ MDX Queries with Attributes, Members, Axis
- ✓ MDX @ Hierarchies, Levels and Attribute Keys
- ✓ MEMBERS, CHILDREN, ALL MEMBERS Options
- ✓ Reporting Measures, Attributes. Tuple & Set
- ✓ MDX Joins using * and CROSSJOIN. Precautions
- ✓ ORDER, TOPCOUNT / BOTTOMCOUNT/ HEAD
- ✓ WHERE, EXCEPT, RANGE, Operators in MDX
- ✓ NONEMPTY and Multiple Member Values
- ✓ PARENT, CHILDREN with MDX. Tuple Inverse
- ✓ FILTERS - CURRENT MEMBER, EMPTY MEMBER
- ✓ FILTER with AND / OR and LEFT / RIGHT Range
- ✓ LEFT/RIGHT and Pattern Matching with MDX
- ✓ Exact & Closest Match Search, MDX Operators
- ✓ Working with NULL Values, Cascades and Cell
- ✓ MDX Batches, ADOMD Client: Query Processing
- ✓ Differences - Cube Browser & MDX Expressions
- ✓ Formatting Options. Member Name Binding
- ✓ Attribute Keys for Member Value Access
- ✓ SSMS Vs Cube Browser @ SSMS / SSDT, Nulls

Video 5: CALCULATIONS, TIME ENHANCEMENTS

- ✓ MDX Calculations - Need & Advantages. UI Options
- ✓ Calculations with MDX Scripts. Syntax Verification
- ✓ Calculations Usage and Folders - Cube Browser
- ✓ Reusing Calculations with MDX Expressions
- ✓ Calculations in FILTERS and Search Pattern - MDX
- ✓ Conditional Formats, Expressions in Microsoft Excel
- ✓ TIME DIMENSIONS - Purpose and Advantages
- ✓ Time Keys and Time Attributes - Calendar / Fiscal
- ✓ Adding Hierarchies, Members to Time Dimensions
- ✓ Dimension Enhancements - Advantage and Scope
- ✓ Cube Enhancements - Purpose and Usage Scope
- ✓ Time Calculations with MDX Expressions, SCOPE
- ✓ Attributes & Hierarchies For Time Enhancements
- ✓ Time Calculations for Attributes & Hierarchies
- ✓ MDX Scripting for Time Calculations. Techniques
- ✓ Attribute Calculation Sets, MDX Scripts. Grouping
- ✓ Time Calculations in MDX Editor and Cube Browser
- ✓ Time Calculations with User Defined Calculations
- ✓ Attribute Level Calculations & Dimension Members
- ✓ Measure Level Calculations and Granularity Levels
- ✓ Calculations: Type, Scope, Format and Visibility
- ✓ Associated Measure Groups & Parent Hierarchy
- ✓ Pie-Charts & User Defined Measures For Time
- ✓ Slow Queries with MDX: Need for Tuning Cubes

Video 6: PARTITIONS, AGGREGATIONS & STORAGE

- ✓ Partitions : Purpose and Architecture, Tuning
- ✓ Cube Partitions : Storage, Slicing Conditions
- ✓ Query and Table Binding in Partition Design
- ✓ Default Partitions. Location / Remote Storage
- ✓ Role of Measure Group Partitions in Cubes
- ✓ Aggregations: Purpose. Predefined Calculations
- ✓ Aggregations: Full, Default, None, Unrestricted
- ✓ Aggregation with Optimization Levels. Storage
- ✓ Measure Properties and Aggregations Types
- ✓ Linking Aggregations and Partitions. Slicing
- ✓ Aggregation Reusability Options with Partitions
- ✓ Additive and Semi-Additive Measures - Options
- ✓ Estimated Row Count & Advantages - Tuning
- ✓ Minimize Impact on OLAP Cube Processing
- ✓ Storage Modes : Multidimensional, Relational
- ✓ Aggregation Storage & Measure Group Storage
- ✓ Automatic, Scheduled, Medium , Low Latency
- ✓ Low Latency and Custom Scheduling Options
- ✓ Proactive Caching & Silence / Override Interval
- ✓ Cache Rebuilds, Overwrite. Partition Processing
- ✓ Choosing Correct Storage Modes for MOLAP
- ✓ Perspectives - Scenarios @ Invalid Cube Access
- ✓ Dimension Usage for Relations. End User Access
- ✓ Partitions, Aggregations, Perspectives - Deploy

Video 9: TABULAR MODE DESIGN and MDX QUERIES

- ✓ Tabular Mode - Advantages and SSDT Templates
- ✓ Workspace Server and Configuration Settings
- ✓ Entity Identification and Design Constraints
- ✓ Data Import Wizard and ODBC Connection Settings
- ✓ ODC: Office Data Connections and Column Filters
- ✓ Named Query with Tabular Design, Entity Relations
- ✓ Dimension Identification - Hierarchies, Attributes
- ✓ Time & Non-Time Hierarchies with Tabular Mode
- ✓ Aggregated Measures & Measure Groups with KPI
- ✓ KPI: Static & Dynamic Goals. Status, Trend Factors
- ✓ Partitions - Entity Partitions, SQL Scripts, Process
- ✓ Partition Reuse. Perspectives in Tabular Mode
- ✓ Time Based Hierarchies and Keys in Tabular Mode
- ✓ BUILD & DEPLOY in Tabular Mode. XMLA Scripts
- ✓ Tabular DB Processing: In-Memory & Direct Query
- ✓ In-Memory Direct Query, Direct Query In-Memory
- ✓ Performance of Tabular Mode, In-Memory Queries
- ✓ Virtual Cube Access and MDX in Tabular Mode
- ✓ MDX Filters - Vertical, Horizontal Access. MEMBERS
- ✓ Connections & Semantic Definition Language
- ✓ Cube Design - STAR / SNOWLFLAKE Schemas
- ✓ MDX Predicates and FILTER(), Nested Queries

Video 10: TABULAR MODE - DAX QUERIES

- ✓ DAX Query Syntax & Purpose. ROW, CONTAINS
- ✓ Measures inside DAX. ROLAP ADDCOLUMN
- ✓ DAX Local Measures in MDX, Drill through
- ✓ CALCULATETABLE, FILTER, SUMMARIZE
- ✓ CROSSJOIN, GENERATEALL and LOOKUPVALUE
- ✓ FILTER in CALCULATE, CALCULATETABLE
- ✓ TOPRANK, RANKX, RANK.EQ and DAX Filters
- ✓ Vertipaq Storage Advantages and OLAP Options
- ✓ Direct Query Mode Settings. Data Modelling
- ✓ Optimizing Performance by Memory Usage
- ✓ Row Oriented Vs Column Oriented Databases
- ✓ Security Management with DAX. OLAP DB Roles
- ✓ Entity Roles and Membership of Multiple Roles
- ✓ DAX Filters and Dynamic Security - Visual Totals
- ✓ Dynamic Security DAX Functions. Row Filters
- ✓ Tabular Mode Cube Design with ODC Sources
- ✓ Tabular Mode Design with DAT, HTML Sources
- ✓ Advantages & Limitations of Tabular Cubes
- ✓ Importing Tabular Mode Solutions - Workspace
- ✓ Multidimensional Mode Versus Tabular Mode
- ✓ Entity Level Versus Measure Group Partitions
- ✓ Zero Aggregation Vs Usage Based Optimization

✓ Tabular Cubes with Joins, SCOPE, TOPPERCENT ✓ xVelocity & Direct Query with MDX / DAX. Tuning	✓ Sub Cube and Data Mining Advantages - MOLAP ✓ Design & Access, Delivery Advantages - ROLAP
Video 11: CUBE MANAGEMENT and DATA MINING ✓ SSAS Database and Cube Audits - MDX Query Logs ✓ Security Audits & Optimizations, Database Audits ✓ Usage Based Optimization (UBO): Aggregations ✓ Usage Based Optimization (MOLAP) and Filters ✓ Flight Recorder Settings and Query Log Providers ✓ Data Sampling Intervals and MDX Query Tuning ✓ 100% Aggregations FULL, CPU & Space Thresholds ✓ Lazy Aggregations and Performance Settings ✓ Writebacks - Purpose and Usage. Forecast Updates ✓ Writeback Partitions - Cube & Dimension UPDATES ✓ Using MDX Expressions and Queries for Write back ✓ Writeback Tables, MDX Transaction COMMITS ✓ Subcube - Advantages and MDX Query Plans ✓ Subcube - DESCANDANTS, PARENT and MEMBERS ✓ Data Mining - Purpose, Techniques, Forecasts ✓ Mining Structures and Mining Models - Storage ✓ CLUSTERING,DECISION TREES, NEURAL NETWORK ✓ REGRESSION Techniques, Naive Bayes Mining ✓ Case Tables Identification and Nested Tables ✓ Attribute Types - DESCRETE and CONTINOUS ✓ Training Sets and Testing Sets for Data Mining ✓ Dependency Rules, Classification and Lift Chart ✓ Mining Algorithms - Score and Prediction Analysis ✓ DMX - Forecasts, Prediction Functions, Expressions ✓ Mining Model Comparison, DMX, Forecast Reports	**Video 12: REAL-TIME PROJECT and OLAP MODES** ✓ Multidimensional Management: Backups, Restores ✓ Multidimensional Management: Detach, Attach ✓ Multidimensional Management: DB Synchronize ✓ Tabular OLAP Management: Backups, Restores ✓ Tabular OLAP DB Management: Detach, Attach ✓ OLAP DB Scripting and Cloning Options. Jobs ✓ Cube Processing Jobs with XMLA Commands ✓ Other Analysis Command Execution Platforms ✓ Comparing SSAS 2012, 2014 and SSAS 2016 ✓ Comparing Multidimensional and Tabular Modes ✓ XEvents through SSMS (New in SSAS 2016) ✓ DAX performance and Super DAX ✓ DBCC Commands and MDX for SSAS - 2016 **Real-time Project for SSAS** **> Multidimensional Mode** **> Tabular Mode** **Domain: Banking / Ecommerce / ERP**

ALL TRAINING SESSIONS ARE COMPLETELY PRACTICAL, REAL-TIME.

Pre-requisites for this SSAS (MDX, DAX) Course:

Participants are requested to be aware of SQL Server 2012/2014/2016 T-SQL Basic concepts including Database Design, Table Design, Constraints, Views and Queries.

About Trainer:

Mr. Sai Phanindra Tholeti is a Database Consultant working for his own company - *SequelGate Innovative Technologies Pvt. Ltd*. With more than 11 years of expertise and passion for SQL Server, Administration (SQL DBA) and Business Intelligence (MSBI) - Mr. Sai provides Data Hosting, Business Consulting to Corporate Clients. All his training sessions are completely **practical**, **real-time** and highly **interactive**. Complete profile at **http://www.linkedin.com/in/saiphanindra**

For Free Demo / Further Clarifications, please reach us.

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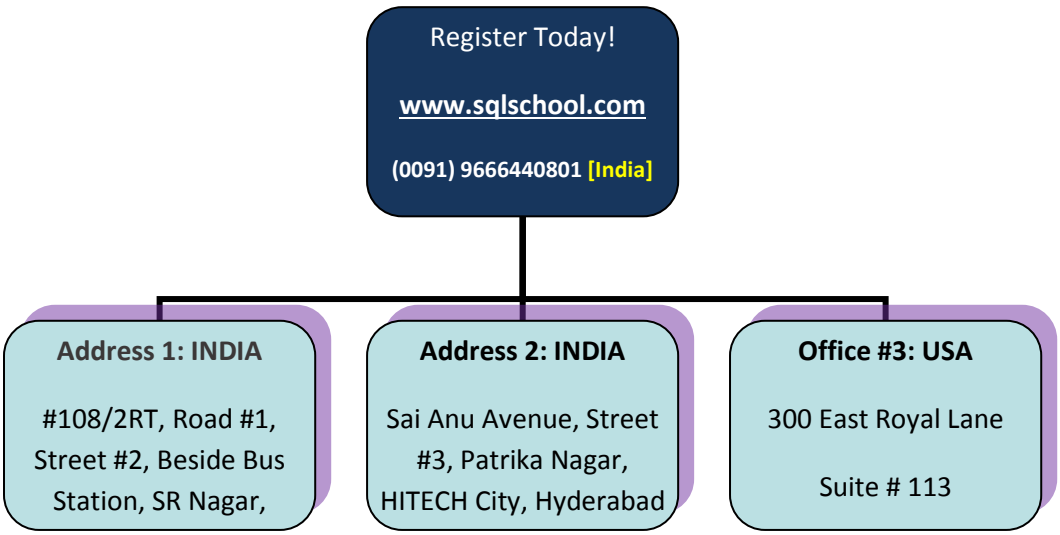

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