
Data warehousing & Business Intelligence (MSBI)

Introduction to Data warehousing & Business Intelligence SQL Server 2012 Business Intelligence

Course Agenda:

- SQL Server 2012 Integration Services (SSIS)
- SQL Server 2012 Analysis Services (SSAS)
- SQL Server 2012 Reporting Services (SSRS)

SQL Server 2012 Integration Services

Introduction to SQL Server Integration Services

- SSIS Package Architecture Overview
- Development and Management Tools
- The Import and Export Wizard

Guided tour of Business Intelligence Development Studio

Introduction to Data Flow

- Data Flow Overview
- Data Sources
- Data Destinations
- Data Flow Transformations
- Data Viewers

Data Sources

- Excel Source
- Flat File Source
- OLE DB Source
- XML Source

Data Flow Transformations

- Aggregate Transformation
- Audit Transformation
- Character Map Transformation
- Conditional Split Transformation
- Copy Column Transformation

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- Derived Column Transformation
 - Data Conversion Transformation
 - Multicast Transformation
 - OLE DB Command Transformation
 - Percentage Sampling Transformation
 - Row Count Transformation
 - Sort Transformation
 - Union All Transformation

Advanced Data Flow

- Lookup Transformation
- Merge Transformation
- Merge Join Transformation
- Slowly Changing Dimension Transformation
- Pivot Transformation
- Export Transformation
- Import Transformation
- Unpivot Transformation

Data Flow Destinations

- Data Reader Destination
- Excel Destination
- Flat File Destination
- OLE DB Destination

Introduction to Control Flow

- Control Flow Overview
- Precedence Constraints
- The Execute SQL Task
- The Bulk Insert Task
- The File System Task
- The FTP Task
- The Send Mail Task
- Bulk Insert Task
- Data Flow Task
- Execute DTS 2000 Package Task
- Execute Package Task
- Execute Process Task
- Web Service Task
- XML Task

Advanced Control Flow

- For Loop Container
- For Each Loop Container
- Sequence Container

Variables and Configurations

- Variables Overview
- Variable scope
- SSIS system variables
- Using variables in control flow
- Using variables in data flow
- Using variables to pass information between packages
- Property expressions
- Configuration Overview
- Configuration options
- Configuration discipline

Debugging, Error Handling and Logging

- SSIS debugging overview
- Breakpoints in SSIS
- Control Flow: The On Error event handler
- Data Flow: Error data flow
- Configuring Package Logging
- Built-in log providers

Extending SSIS through Custom Code – Scripting

- Introduction to SSIS scripting
- The SSIS script editor
- The SSIS object model
- Script in Control flow: The Script Task
- Script in Data flow: The Script Component
- Introduction to SSIS component development

SSIS Package Deployment

- Configurations and deployment
- The deployment utility
- Deployment options
- Deployment security

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- Executing packages – DTEXec and DTEXecUI

SSIS Package Management

- The SSIS Service
- Managing packages with DTUtil
- Managing packages with SQL Server Management Studio
- Scheduling packages with SQL Server Agent

SQL Server 2012 Analysis Services

What Is Microsoft Business Intelligence?

- Defining Microsoft Business Intelligence
- Understanding the UDM
- Building and Viewing a Sample Cube
- Viewing a Cube Using Excel
- Cubes in Reporting Services
- Using SSAS in BIDS
- Understanding BIDS
- Creating Data Sources
- Creating Data Source Views
- Creating a Cube Using the Wizard
- Refining Dimensions and Measures

Intermediate SSAS

- Creating KPIs
- Creating Perspectives
- Creating Translations
- Creating Actions
- Advanced SSAS
- Working with Multiple Fact Tables
- Using Advanced Dimension Types
- Working with Changing Dimensions
- Using the Business Intelligence Wizard

Cube Storage and Aggregation

- Basic Storage: MOLAP
- Customized Aggregations
- Advanced Storage: MOLAP, HOLAP, or ROLAP
- Implementing Proactive Caching

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- Using Partitions: Relational or SSAS
 - Cube and Dimensions Processing Options

Beginning MDX

- Understanding MDX
- About Members, Tuples, and Sets
- Common MDX Functions Explained
- New or Updated MDX Functions or Keywords

Intermediate MDX

- Understanding the Calculations Sub tab
- Adding Calculated Members
- Adding MDX Scripts
- Adding Named Sets

SSAS Administration

- Implementing SSAS Security
- Implementing XMLA Scripts
- Understanding SSAS Backup and Restore
- Understanding Performance Optimization

Introduction to SSAS Clients

- Using Excel 2007 Pivot Tables
- Using SQL Server Reporting Services

SQL Server 2012 Reporting Services

SQL Server Reporting Services (SSRS) Architecture

- Report types and formats
- SSRS Web Services
- Report Server
- Report Builder
- Model Designer
- Data sources: SQL Server, Oracle, OLE DB

Authoring Reports

Creating basic reports

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- Tabular
 - List
 - Matrix
 - Chart
 - Constructing data sources and Datasets
 - Inserting a data region, fields and images

Leveraging expressions

- Calculating fields
- Integrating expressions in properties
- Applying conditional formatting
- Adding images

Grouping and sorting data

- Grouping to multiple levels
- Sorting the results
- Employing aggregate functions

Implementing Parameters and Filters

Building parameters into reports

- Returning subsets of data with query parameters
- Mapping report parameters to query parameters
- Building cascading report parameters
- Passing parameters to stored procedures
- Exploiting multivalve parameters

Restricting report data with filters

- Enhancing performance with filters
- Filters vs. query parameters
- Localizing tables and queries

Leveraging Advanced Reporting Features

Combining data regions in one report

- Utilizing sequential and nested regions
- Producing master/detail reports
- Linking sub reports

Presenting data with appropriate detail

- Revealing report detail with drill down
- Displaying related data with drill through
- Navigating with document maps

Deploying and Delivering Reports

Deploying reports to the server

- Preparing reports for publishing
- Configuring project properties
- Units of deployment: Individual reports, projects, solutions, data sources
- Checking results with Report Manager

Securing Reporting Services

Securing the RS environment

- Assigning users to roles
- Setting permissions on report items
- Granting and revoking system-level permissions

Creating reports with Report Builder

- Deploying Report Builder to users
- Dragging and dropping entities onto charts and tabular reports
- Navigating data with infinite drill through

Note:

1. Real-time scenario's
2. Providing the daily notes.
3. Daily session 1 hrs.
4. After finish the course providing to Real-time Interview Q&A

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