MSBI Training SSIS Course Syllabus

Introduction to SSIS & Data Warehouse

- Need for SSIS and ETL / DWH Entities
- Data Warehouse Design and SSIS
- DW Components and SSIS Tools
- SSIS Configuration and Catalog DB
- Control Flow Tasks Architecture
- Data Flow Tasks and ETL Architecture
- Data Pipelines and Data Buffers

Basic ETL Entities in SSIS

- SSIS Data Types and Data Conversions
- SSIS Local and Global Variables
- Dynamic Precedence Constraints
- Dynamic Connection Managers in DFT
- Data Flow Transformations and Usage
- Handling ETL Enumerations in SSIS
- ETl with Loops & Indexed Connections

SSIS Expressions & Package Debugging

- Conditional Precedence Expressions
- SSIS Parameters Usage and Variables
- Control Flow Breakpoints - Usage
- Data Flow Data Viewers and Audits
- SSIS Expressions & Debugging Options
- Debugging SSIS Packages & Limitations
- Debugging Procedures in Realtime

Data Flow Transformations and ETL

- Row and Column Transformations
- Combining and Splitting Data
- Performing SQL Database Operations
- MERGE Vs UNION ALL Transformations
- Lookup, Fuzzy Lookup and Grouping

- SORT Vs AGGREGATE Transformations
- OLE-DB Command Usage & Parameters
- Derived Columns & Data Conversions
- SSIS Parameter Mappings & Options
- Tabular Data Stream & Commit Size
- Table Locks & Batch Calculations

SSIS Customizations with .NET

- SSIS SCRIPT Task (.NET) and Coding
- Scripts for Control Flow Limitations
- Scripts for Data Flow Limitations
- ADO Connections and DataAdapters
- Custom Code (.NET) Handling in SSIS
- Script Tasks & Notify Operators
- SSIS Expressions and Iterations

SCD Transformation - ETL / DW

- Data Analytics and Column Profiling
- Data Sampling and Data Delta
- Type I and Type II SCD Examples
- Dimension Table Design, Surrogate Keys
- SCD - Business Keys and Attributes
- SCD - Historical Attributes and Status
- Event Notifications and Emails
- ETL - Partial and Full Cache Options
- Fact Table Loads and ETL Load IDs
- PIVOT, UNPIVOT and WebService T/Fs
- TDS Sizing and Memory Options

Checksum Operations for ETL/DW

- CHECKSUM Transformation in DW
- CACHE Transformation & Usage
- Partial and Full Cache Options
- SSIS Transactions & Isolation Levels
- Checksum for Type 1 and Type 2

- SSIS Checkpoints and Limitations

Change Data Capture (CDC) for ETL/DW

- CDC Sources and Controls in SSIS
- CDC Tables and Change Tracking
- Dynamic CDC Connections & Logging
- Using CDC for Dimension Loads (ETL)

Events, Errors and Logging

- SSIS Package Events and Audits
- Package Level Event Handling Options
- SSIS Event Bubbling Escalations
- SSIS Logging & Project Connections
- Windows Event Logs and SSIS Jobs
- SQL Server Logging and Audit Tables
- Global Connections and Project Audits
- Logging Fuzzy Data Loads and ETL
- Need For XML Connections & ADO
- XML Connections & BLOB Data
- Using SSIS Data Profile Viewer Task

Master - Child Packages & Fact Loads

- Configuring Master Packages, Parameters
- Configuring Child Packages, Parameters
- Parameter Bindings, Execute Process
- OLE DB Transformation and Parameters
- ADO.Net Connection Limitations in SSIS
- Solutions to Data Delta Options
- Fact Loads with DAT / BLOB Files
- Fact Loads with SSIS CDC Controls
- Fact Loads with SSIS SCD Controls
- Fact Loads with Key Lookups
- Tuning Fact Loads in Warehouse

Deployment Procedures

- Project Builds & Bit Level Options
- Creating ISPAC Files : SSIS 2014, 2012
- Securing SSIS Manifest Files (PROD)
- 64 bit and 32 bit Configurations
- Validation & Verification Techniques
- Configuration Options and Connections
- Control Loops and Indexed Connections
- Migrating SSIS ISPAC Files & Options
- SSIS Package Backups and Passwords
- Project Level Passwords and Encryption

SSIS Project Deployments

- SSIS Deployment and SSIS Catalog DB
- SSIS Catalog Project Files and Options
- Security - Logins, Users, SSISAdmin
- SSIS Catalog Folders in SSISDB
- Post Deployments & Connections
- Package Configurations, Parameters
- SSIS Package Validations, Reports
- Checksum Management and Encryptions
- SSIS Package Scripts with T-SQL
- Tuning Deployment and Configurations
- SSIS Package Performance Reports

SSIS Package Security and Reports

- SSIS Package Security Options
- Encrypting SSIS Catalog Packages
- SSIS Package Store and SSISDB
- Security Audits Reports and Limitations
- SSIS Folder Level Security Options
- Project Level Security and SSIS Roles
- Container and Package Logging

SSIS Package Upgrades

- SSIS Project Migration Utilities
- Importing ISPAC and Manifest Files
- SSIS Project Import Wizard - Usage
- Upgrading Packages & Configurations
- Command-Line Deployments & Options
- Package Backup Procedures & Jobs
- Upgrading SSIS 2012 to SSIS 2014
- MSDB and SSIS Catalog DB Files
- Comparing SSIS 2012 and 2014

Like and follow with us for more details