MSBI Course Content

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I) DWH Concepts

1. What is DWH and why DWH, Diff between DWH and BI
2. Types of data, OLTP vs OLAP systems.
3. Types of tables Schemas in DWH.
4. **SQL Server Database Development.**

II) SQL Server 2012 Integration Services (SSIS) Training Course Outline

1. Introduction to SQL Server Integration Services
  1. Product History
  2. SSIS Package Architecture Overview
  3. Development and Management Tools
  4. Deploying and Managing SSIS Packages
  5. Source Control for SSIS Packages

2. Business Intelligence Development Studio
  1. Launching BIDS
  2. Project templates
  3. The package designer
  4. The Toolbox
  5. Solution Explorer
  6. The Properties window
  7. The Variables window
  8. The SSIS menu

3. Introduction to Control Flow
  1. Control Flow Overview
  2. Precedence Constraints
  3. The Execute SQL Task
  4. The Bulk Insert Task
  5. The File System Task
  6. The FTP Task
  7. The Send Mail Task

4. Advanced Control Flow
  1. Containers - grouping and looping
  2. The Analysis Services tasks
  3. The Execute Process Task
  4. The Execute Package Task

5. Introduction to Data Flow
  1. Data Flow Overview
  2. Data Sources
  3. Data Destinations
  4. Data Transformations
  5. The Copy Column Transformation
  6. The Derived Column Transformation

  7. The Data Conversion Transformation
  8. The Conditional Split Transformation
  9. The Aggregate Transformation
  10. The Sort Transformation
  11. Data Viewers

6. Variables and Configurations
  1. Variables Overview
  2. Variable scope
  3. SSIS system variables
  4. Using variables in control flow
  5. Using variables in data flow
  6. Using variables to pass information between packages
  7. Property expressions
  8. Configuration Overview
  9. Configuration options
  10. Configuration discipline

7. Debugging, Error Handling and Logging
  1. SSIS debugging overview
  2. Breakpoints in SSIS
  3. SSIS debugging windows
  4. Control Flow: The On Error event handler
  5. Data Flow: Error data flow
  6. Configuring Package Logging
  7. Built-in log providers

8. Advanced Data Flow
  1. Revisiting data sources and destinations
  2. The Lookup Transformation
  3. Getting Fuzzy: The Fuzzy Lookup and Fuzzy Grouping Transformations
  4. The Multicast Transformation
  5. The Merge and Merge Join Transformations
  6. The Data Mining Query Transformation
  7. The Data Mining Model Training Destination
  8. The Slowly Changing Dimension Transformation

9. Extending SSIS through Custom Code
  1. Introduction to SSIS scripting
  2. The SSIS script editor
  3. The SSIS object model
  4. Script in Control flow: The Script Task
  5. Script in Data flow: The Script Component

6. Introduction to SSIS component development

10. SSIS Package Deployment
1. Configurations and deployment
2. Managing packages with DTUtil
3. Managing packages with SQL Server Management Studio

III) SQL Server 2012 Reporting Services (SSRS) Training Course Outline

1. Introducing SQL Server Reporting Services
1. Tour of Features
2. Reporting Services Architecture
3. Reporting Services Terminology
4. Reporting Services Editions

2. Creating Reports
1. Shared Data Sources
2. Creating Reports from Scratch

3. Calculations and Formatting
1. Reporting Services Items
2. Basic Expressions
3. Using the Global Collections
4. Formatting Fields
5. Conditional Formatting

4. Grouping and Sorting
1. Creating Groups
2. Interactive Sorting
3. Creating Drill-Down Reports
4. Calculating Totals and Percentages

5. Report Parameters
1. Creating Report Parameters
2. Binding Report Parameters to Dataset Parameters
3. Creating Drop-Down Parameters
4. Multi-Valued Parameters
5. Debugging Parameter Issues

6. Creating Matrix Reports and Charts
1. Creating a Basic Matrix Report
2. Matrix Subtotals
3. Creating Chart Reports
4. Exploring the Charting Possibilities
5. Charting Add-ons

7. Managing Reporting Services
1. Using the Web-Based Report Manager
2. Using SQL Server Management Studio-based Reporting Services Manager
3. Deploying Reports and Data Sources

8. Reporting Services Security
1. Reporting Services Security
2. Managing Roles

2. The deployment utility
3. Deployment options

11. SSIS Package Management
1. The SSIS Service

9. Distributing Reports via Subscriptions
1. How Subscriptions Work
2. Creating Standard Subscriptions
3. Creating Data-Driven Subscriptions
4. Managing Subscriptions

10. Ad-Hoc Reporting with Report Builder
1. The Report Builder Architecture
2. Creating Report Model Projects
3. Running Report Builder

IV) SQL Server 2012 Analysis Services (SSAS) Training Course Outline

1. Introduction to Microsoft SQL Server 2005 Analysis Services
1. Overview of Data Analysis Solutions
2. Overview of SQL Server 2005 Analysis Services.
3. Installing SQL Server 2005 Analysis Services.

2. Creating Multidimensional Analysis Solution
1. Developing Analysis Services Solutions.
2. Data Sources and Data Source Views
3. Creating a Cube

3. Working with Dimensions
1. Configuring Dimensions
2. Defining Hierarchies
3. Sorting and Grouping Attributes

4. Working with Measures and Measure Groups
1. Working with Measures.
2. Working with Measure Groups.

5. Querying Multidimensional Analysis Solutions
1. MDX Fundamentals
2. Adding Calculations to a Cube

6. Customizing Cube Functionality
1. Implementing Key Performance Indicators.
2. Implementing Actions
3. Implementing Perspectives.
4. Implementing Translations.

7. Deploying and Securing an Analysis Services Database
1. Deploying an analysis Services Database.
2. Securing an Analysis Services Database.

8. Maintaining a Multidimensional Solution

1. Configuring processing settings
2. Logging, Monitoring, and Optimizing an Analysis Services Solution
3. Backing Up and Restoring an Analysis Services Database.

9. Introduction to Data Mining

1. Overview of Data Mining
2. Creating a Data Mining Solution
3. Validating Data Mining Models

V) Project Explanation.

VI) Interview Questions Discussion.

VII) Resume Preparation.

8.

9. Variables and Configurations

1. Variables Overview
2. Variable scope
3. SSIS system variables
4. Using variables in control flow
5. Using variables in data flow
6. Using variables to pass information between packages
7. Property expressions
8. Configuration Overview
9. Configuration options
10. Configuration discipline

10.   Debugging, Error Handling and Logging

1. SSIS debugging overview
2. Breakpoints in SSIS
3. SSIS debugging windows
4. Control Flow: The On Error event handler
5. Data Flow: Error data flow
6. Configuring Package Logging
7. Built-in log providers

9. Advanced Data Flow

1. Revisiting data sources and destinations
2. The Lookup Transformation
3. Getting Fuzzy: The Fuzzy Lookup and Fuzzy Grouping Transformations
4. The Multicast Transformation
5. The Merge and Merge Join Transformations
6. The Data Mining Query Transformation
7. The Data Mining Model Training Destination
8. The Slowly Changing Dimension Transformation

12.   Extending SSIS through Custom Code

1. Introduction to SSIS scripting
2. The SSIS script editor
3. The SSIS object model
4. Script in Control flow: The Script Task
5. Script in Data flow: The Script Component
6. Introduction to SSIS component development

13. SSIS Package Deployment

1. Configurations and deployment
2. The deployment utility
3. Deployment options
4. Deployment security
5. Executing packages - DTExec and DTExecUI

14. SSIS Package Management

1. The SSIS Service
2. Managing packages with DTUtil
3. Managing packages with SQL Server Management Studio

VIII) SQL Server 2012 Reporting Services (SSRS) Training Course Outline

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3. Introducing SQL Server Reporting Services
1. Tour of Features
2. Reporting Services Architecture
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4. Creating Reports
1. Shared Data Sources
2. Creating Reports from Scratch

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3. Creating Chart Reports
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12.   Managing Reporting Services
1. Using the Web-Based Report Manager
2. Using SQL Server Management Studio- based Reporting Services Manager
3. Deploying Reports and Data Sources

13.   Reporting Services Security
1. Reporting Services Security
2. Managing Roles

14.   Distributing Reports via Subscriptions
1. How Subscriptions Work
2. Creating Standard Subscriptions

3. Creating Data-Driven Subscriptions

4. Managing Subscriptions

15. Ad-Hoc Reporting with Report Builder

1. The Report Builder Architecture

2. Creating Report Model Projects

3. Running Report Builder

IX) SQL Server 2012 Analysis Services (SSAS) Training Course Outline

1. Introduction to Microsoft SQL Server 2005 Analysis Services

4. Overview of Data Analysis Solutions

5. Overview of SQL Server 2005 Analysis Services.

6. Installing SQL Server 2005 Analysis Services.

2. Creating Multidimensional Analysis Solution

4. Developing Analysis Services Solutions.

5. Data Sources and Data Source Views

6. Creating a Cube

3. Working with Dimensions

4. Configuring Dimensions

5. Defining Hierarchies

6. Sorting and Grouping Attributes

4. Working with Measures and Measure Groups

3. Working with Measures.

4. Working with Measure Groups.

5. Querying Multidimensional Analysis Solutions

3. MDX Fundamentals

4. Adding Calculations to a Cube

6. Customizing Cube Functionality

5. Implementing Key Performance Indicators.

6. Implementing Actions

7. Implementing Perspectives.

8. Implementing Translations.

7. Deploying and Securing an Analysis Services Database

3. Deploying an analysis Services Database.

4. Securing an Analysis Services Database.

8. Maintaining a Multidimensional Solution

4. Configuring processing settings

5. Logging, Monitoring, and Optimizing an Analysis Services Solution

6. Backing Up and Restoring an Analysis Services Database.

9. Introduction to Data Mining

4. Overview of Data Mining

5. Creating a Data Mining Solution

6. Validating Data Mining Models

X) Project Explanation.

XI) Interview Questions Discussion.

XII) Resume Preparation.