SQL Server 2008 R2: What's New

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Course description: SQL Server 2008 brought many changes to the SQL platform and the R2 release added many more. This course will help to bring you up to speed on these changes and how they will affect how you work with SQL Server. You will see what is new with installation and security, see its support for managing data-tier applications and a multi-server environment, and learn about PowerPivot, which Microsoft calls "managed self-service business intelligence" that gets BI data in the hands of users who need it. Next you will learn about the new StreamInsight feature that lets you query high-volume data streams for useful nuggets of information and emerging trends. Reporting Services probably received by far the most enhancements in R2 and you will learn about the new expression language and data visualization features. Report Manager and Viewer received major overhauls, and you will see how to put them to good use, as well as exploring how to put Report Builder to use creating great reports.

Course outline:

SQL Server 2008 R2
- Introduction
- Focus of R2
- What Hasn"t Changed in R2?
- New Top-End Premium Additions
- Features Migrated to Lower Editions
- Summary of Editions
- Enhanced Security
- Credential Forwarding Attacks
- Extended Protection In Windows
- Extended Protection and SQL
- Demo: Activate Extended Protection
- Summary

Installation And MDS
- Introduction
- Installation Enhancements
- New Installation Options
- New Command Line Parameters
- Running SQL Server Side-by-Side
- Categories of Components
- Shared Components
- Using Master Data Services
- Master Data Management
- Master Data Services
- MDS Components
- Defining the Data
- Using Master Data
- Summary

Multi-Server Management
- Introduction

- SQL Server Utility
- Demo: Utility Explorer
- Data-Tier Applications
- Data-Tier Applications (DAC)
- DACs as Collaborative Tool
- Limits & Requirements of DACs
- Limitations on DACs
- Creating Data-Tier Applications
- Demo: Creating a DAC
- Import a DAC
- Demo: Import a DAC
- Summary

Data Tier Applications
- Introduction
- Extracting a DAC
- Demo: Extract a DAC
- Working with DACs
- Demo: Working with DACs
- Delete a DAC Registered in SQL
- Demo: Delete a DAC
- Summary

Register and Manage DACs
- Introduction
- Register Data-Tier Application
- Demo: Registering Data-Tier
- Upgrading and Updating a DAC
- Updating a DAC: Visual Studio
- Demo: DAC - Visual Studio
- Summary

Intro to PowerPivot
- Introduction

- Client and Server Tools
- PowerPivot Components
- Data Access Tools
- Importing Data
- PowerPivot Data Types
- PowerPivot Reports
- Working with PowerPivot
- Demo: PowerPivot
- Summary

PowerPivot Features
- Introduction
- Demo: Power Pivot Features
- Demo: Relationships
- Demo: Changing Aspects
- Summary

Text, Data and Analysis
- Introduction
- Demo: Delimited Text Files
- Demo: Import Linked Tables
- Demo: Create PowerPivot Report
- Summary

Stream Insite Intro
- Introduction
- Complex Event Processing (CEP)
- CEP Uses
- Queries vs. Event Processing
- Microsoft StreamInsight
- Availability
- StreamInsight Architecture
- Streams

- Events and Data Structures
- Input and Output Adapters
- StreamInsight Base Classes
- Queries
- Installing StreamInsight
- Demo: Installing StreamInsight
- Developing with StreamInsight
- Demo: StreamInsight
- Summary

Querying
- Introduction
- Querying a Data Stream
- Demo: Highway Monitor
- Windowing and Aggregation
- Demo: Highway Monitor
- Other Query Options
- Summary

SSRS Sources and Expressions
- Introduction
- New Data Sources
- Cache Refresh Plans
- Expression Language
- Lookup Functions-Join Datasets
- Lookup Functions Syntax
- Lookup Function
- Demo: Lookup Function
- MultiLookup Function
- Aggregates of Aggregates
- Demo: Aggregates

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- RenderFormat
- Demo: RenderFormat
- Summary

SSRS Variables and Layout
- Introduction
- Writable Report Variables
- Demo: Writable Report Variable
- Layout Enhancements
- Demo: Layout Enhancements
- Pagination and Page Numbering
- Demo: Pagination and Numbering
- Summary

Data Alignment and Atom Feed
- Introduction
- Synchronized Data Alignment
- Demo: Data Alignment
- Report as Atom Data Feed
- Demo: Atom Data Feed
- Summary

Shared Datasets
- Introduction
- Shared Datasets
- Benefits of Shared Datasets
- Creating Shared Datasets
- Demo: Shared Datasets
- Which Kind of Dataset to Use
- Summary

Data Visualization
- Introduction
- Make Report Data Come Alive
- Data Bars
- Demo: Data Bars
- Sparklines
- Demo: Sparklines
- Indicators
- Demo: Indicators
- Summary

Mapped Based Data
- Introduction
- Map-Based Data
- Map Data
- Types of Spatial Data
- Layers
- Demo: Map Based Data
- Summary

Managing Reporting Services
- Introduction
- Reporting Services Tools
- Configuration Manager
- Demo: Configuration Manager
- Reporting Services
- Demo: Management Studio
- Summary

Report Manager
- Introduction
- Report Manager

- Starting Report Manager
- Demo: Report Manager
- Report Viewer
- Browser Support
- Demo: Report Viewer
- Summary

Report Builder and Models
- Introduction
- Report Builder vs. Designer
- Demo: Report Builder
- Installing and Starting
- Standalone vs. ClickOnce
- Creating & Using Report Models
- Create the Model
- Demo: Data Model
- Summary

Creating Reports
- Introduction
- Creating Reports
- Demo: Creating Reports
- Preview Performance
- Cache Refresh
- Using Report Parts
- Demo: Report Parts
- Using Reports with SharePoint
- Integrated Mode
- Native Mode
- Viewing Reports in Native Mode
- Demo: SharePoint
- Summary