SQL Server 2008: Reporting Services

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Prerequisites: This course assumes no prior knowledge of SQL Server Reporting Services. This course does assume prior knowledge of SQL Server 2008 and the use of SQL Server Management Studio for development, Visual Studio 2008 using Visual Basic and administrative tasks. The user should also be able to write and run expressions, script files and diagnose problems that occur.

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Course description: In this course, you will learn how to use SQL Server 2008 Reporting Services. Explore its basic architecture and gain a basic understanding of the components of SSRS 2008. You will then explore tabular and list reports that employ datasets and data regions. As you progress you will learn to add custom expressions, custom functions and format your reports using Visual Studio 2008 and SQL Server 2008 Business Intelligence Studio. The reports you create in the course will employ shared data sources, interactive sorting, and drill-down capabilities. You will then understand how Reporting Services parameters work and create parameters in ad-hoc SQL. Next you will be building Matrix reports and charts then explore the use of Reporting Services gauges.

Course outline:

Tour of Features
- Introduction
- Tour of Features
- Feature Overview
- Supported Report Types
- Tabular Reports
- Matrix Reports
- Charts and Graphs
- Additional Report Types
- Supported Output Formats
- Data Sources
- Program Reporting Services
- Deployment - Admin Features
- What"s New in SSRS 08 Part 1
- Demo:New Features Part 1
- What"s New in SSRS 08 Part 2
- Demo:New Features Part 2
- What"s New in SSRS 08 Part 3
- Demo:New Features Part 3
- Summary

SSRS Architechure
- Introduction
- SSRS Architechture
- Report Server
- Report Server Database
- Report Designer
- Report Manager
- Demo:Report Manager
- SSRS Configuration Tool
- SSRS Command-Line Utilities
- Demo:Configuration Tool
- Report Builder
- Model Designer
- Demo:Model Designer
- SSRS and SharePoint
- Why Use SharePoint Integrated
- Not Supported in Integrated
- Alternative to Integrated
- Integrated vs. Native
- Summary

Reporting Server Projects
- Introduction
- Report Server Projects
- Creating Data Sources
- Why Use Shared Data Source
- Demo: Shared Data Source
- Ways to Create a Report
- Using the Report Wizard
- Demo:Report Wizard
- Importing Access Reports
- Demo:Importing Access Reports
- Access Features Not Imported
- Creating a New Blank Report
- Demo:Creating a Blank Report
- Using Visual Studio Designer
- Data Regions
- Mixing and Matching Regions
- Report Execution Options
- Output Options
- Demo: Execute a Report
- Summary

Creating Tabular Report
- Introduction
- What is a Tabular Report?
- Creating Tabular Report
- Demo: Creating Tabular Report
- Datasets and Data Regions
- Adding Dataset to a Report
- Adding Data Region to a Report
- Associating Region to Dataset
- Demo:Associating Region to Set
- Summary

Adding Controls
- Introduction
- Adding Fields to a Data Region
- Other Report Item Types
- Static Images to Reports
- Demo: Static Images
- Bound Images to Reports
- Fixup for Bound Images
- Demo:Fixup for Bound Images
- Is it a Table or a Tablix?
- Adjusting Tablix Properties
- Repeating Table Headers
- Demo:Tablix Properties
- Adding Page Headers+Footers
- Adjusting Report Properties
- Add Rows+Columns to Tablix
- Merging and Splitting Cells
- Demo:Add, Adjusting, Merge
- Summary

Creating List Report
- Introduction
- Creating a List Report
- Demo: List Data Region
- Working with Rich Text
- Text Box Controls
- Enable Rich text Support
- Working with Placeholders
- Formatting Rich Text
- Demo: Rich Text in SSRS
- Using HTML Rich Text
- Enabling HTML Rich Text
- Creating Rich Text HTML
- Formatting with HTML Tags
- Demo: Rich Text HTML
- Summary

Creating Expressions
- Introduction
- Creating Expressions

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- Where to Place Expressions
- Expression Rules
- Using the Expression Editor
- Expression Editor Five Panes
- Building Code Expressions
- Expressions Using Item Panes
- Demo: Code Expressions
- Mathematical Calculations
- Demo: Math Expression
- String Expressions
- Conditional Tests
- Demo: Conditional Tests
- Null Handling
- Other Built-In Functions
- SSRS Specific Functions
- Demo:Nulls and Functions
- Creating Custom Functions
- The Code Window
- Referencing Code
- Demo:Custom Function
- Summary

Global Collections
- Introduction
- Using Global Collections
- Fields Collection
- Globals Collection
- User Collection
- Demo: Globals and User
- Parameters Collection
- Report Items Collection
- Variables Collection
- Demo:Variables Collection
- Summary

Formatting
- Introduction
- Formatting Items
- Formatting Using Toolbars
- Demo:Formatting Toolbars
- Formatting with Properties
- Formatting with Dialog Box
- Using Custom Format Strings
- Format Tablix Rows/Columns
- Demo:Format with Dialog Box
- Demo:Custom Format String
- Demo:Format Rows/Columns
- Conditional Formatting
- Demo:Conditional Formatting
- Conditional and Rich Text
- Demo:Conditional Rich Text
- Summary

Creating Groups
- Introduction
- Creating Groups
- The Grouping Pane
- The Details Group
- Adding a Row Group
- Demo:Row Group
- Add Adjacent Row Group
- Demo:Adjacent Row Group
- Editing Group Properties
- Add Group Headers+Footers
- Demo:Headers and Footers
- Summary

Calculating Totals
- Introduction
- Aggregate Functions
- Demo:Aggregate Functions
- Scope
- Scope Example
- Scope RunningValue/RowNum
- Demo:Scope RunningValue
- Calculating Percentages
- Demo:Calculating Percentages
- Summary

Interactive Sorting
- Introduction
- Interactive Sorting
- Sorting and Groups
- Demo:Interactive Sorting
- Creating Drill-Down Reports
- Group Properties Dialog
- Demo:Drill-Down Report
- Summary

Creating Parameters
- Introduction
- Creating Report Parameters
- Parameters and Procedures
- Demo:Stored Procedures
- Report vs. Dataset Parameters
- Report Parameters
- Dataset Parameters
- Reordering Report Parameters
- Parameter Values on Report
- Demo:Parameters
- Parameters with Ad-Hoc SQL
- Using Unbound Parameters
- Demo:Ad-Hoc SQL Parameters
- Demo:Unbound Parameters
- Summary

Drop Down List Parameters
- Introduction
- Dropdown List Parameters
- Displaying Parameters
- Demo:Dropdown List
- Cascading Parameters
- Demo:Cascading Parameters
- Summary

Parameter Sorting
- Introduction
- Parameterized Sorting
- Demo:Parameterized Sorting
- Show Columns using Parameters
- Demo:Show Columns
- Multivalued Parameters
- Report Multivalued Parameter
- Referring Multivalued Parameter
- Demo:Multivalued Parameter
- Debugging Parameter Issues
- Debugging Other Parameters
- Summary

Creating Matrix Reports
- Introduction
- Creating a Matrix Report
- Steps to Create Matrix Report
- To Group or Not to Group
- Demo:Matrix Report
- Accessorizing Matrix Reports
- Available Summary Statistics
- Adding Row Group
- Demo: Adding Row Group
- Adding Column Group
- Deleting Row or Column Group
- Demo:Column Group
- Working with Totals
- Removing a Total
- Demo:Row and Column Totals
- Adding Data Cells
- Demo:Adding Data Cells
- Data Cell Above or Below
- Demo:Data Cell Above/Below
- Adding Data Cell Labels
- Demo:Adding Data Cell Labels
- Summary

SSRS 2008 Matrix Features
- Introduction
- Tablix Data Region
- Adding Dynamic Columns
- Demo:Dynamic Columns
- Adding Static Columns
- Demo:Adding Static Columns
- Adding Percentage to Matrix
- Demo:Adding Percentage
- Summary

Creating A Chart
- Introduction
- Creating a Chart
- Basic Steps to Create a Chart
- Demo: Creating a Chart
- SQL 2008 Chart Changes
- Chart Anatomy
- Formatting a Chart
- Demo:Formatting a Chart
- Adding a Series to a Chart
- Demo:Adding a Series Field
- Chart Talk
- Chart Types
- Demo:Chart Types
- Charting Tips
- Summary

Adding Gauges
- Introduction
- Gauge Data Region
- Adding Gauges to a Report
- Demo:Adding a Gauge
- Gauge Anatomy
- Demo:2 Gauges
- Add Gauge to Existing Report
- Demo:Gauge to Existing Report
- Summary

Deploy Reports
- Introduction
- Planning for Deployment
- Setting Active Configuration
- Creating Custom Configurations
- Demo:Active+Custom
- Configuring Report Project
- Deploying RS Project
- Redeploying Shared Data
- Demo:Deploying Project
- Exporting Reports + Printing
- Exporting Reports
- Demo:Exporting Reports
- Client-Side Printing
- Client-Side Printing Setup
- More Client-Side Printing
- Demo:Client-Side Printing
- Summary

Report Manager
- Introduction
- Managing Reports
- Displaying or Hiding Details
- Navigating Report Manager
- Running Reports
- Demo:Report Manager
- Managing Folders and Files
- Reports and Data Sources
- Generic Site Settings
- Demo:Folders, Files + Settings
- Creating Linked Reports
- Creating a Linked Report

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- Demo:Creating Linked Report
- Summary

Reporting Services Security
- Introduction
- Reporting Services Security
- Securing Access to Reports
- Authorizing At Home Level
- Authorizing Users
- Demo:Authorizing Users
- Authorizing at Project Level
- Demo:Project Level
- Managing RS Roles
- Demo:Managing RS Roles
- RS and Basic Autherntication
- Configuring Autherntication
- Demo:Config Autherntication
- Summary

SSL
- Introduction
- RS and SSL
- Securing to Report Server
- Demo: Setup SSL
- Securing to Report Manger
- Demo: Securing Report Manager
- Requiring SSL
- Demo: Requiring SSL
- Data Source Security
- Data Security from VS
- Shared Data Properties
- Four Choices for Credentials
- Demo:Security Shared Data
- Summary

Data Source Security
- Introduction
- Local Storing Credentials
- Storing Credentials in RS
- Demo:Storing Credentials
- Overwriting Data Sources
- Demo:Overwriting Data
- SQL Permissions Needed
- Demo:Users Run Reports
- Managing Data Security RM
- Demo:Security from RM
- Summary

Reporting Services APIs
- Introduction
- Reporting Services APIs
- URL Access
- Report with No Parameters
- Report with Parameters
- Demo:Report with URL Access
- Report to Output Format
- Render Formats
- Demo:Render to Formats
- Rendering PDF Custom Margins
- Customizing Data Rendering
- Demo:Rendering to CSV
- Integrating Report to Web App
- Demo:Report to Web App
- Summary

Report Viewer Controls
- Introduction
- Report Viewer Controls
- Server vs. Local reports
- Web Report Viewer Control
- Steps to Use Web Report Viewer
- Demo:ASP with Report Viewer
- Windows Report Viewer Control
- Demo:Windows Report Viewer
- Viewer with Local Reports
- Creating a Local Report
- Demo:Creating Local Report
- Summary

Web Service
- Introduction
- RS Web Services
- A Tale of Two Endpoints
- Why Use the Web Service
- Wny Not Use Web Service API
- Using RS Web Service
- Adding Web Reference
- Demo:Add Web Reference
- ReportService2005 Classes
- ReportService2005 Methods
- Programming RS2005
- CallReportServiceVB.aspx
- Drilling into the Code
- Demo:CallReportServiceVB
- Summary

Web Service Subscription
- Introduction
- Creating Subscriptions
- Drilling into the Code
- Demo:Report Subscriptions
- More Drilling into the Code
- Demo:More Report Subscriptions
- Summary

Custom Assemblies
- Introduction
- Custom Assemblies
- Custom Assembly Example
- Creating Custom Assembly
- Demo:Custom Assembly
- Creating Custom Assembly-2
- Demo:Creating Continued
- Creating Custom Assembly-3
- Demo:Running Assembly
- Security + Custom Assemblies
- Summary

Report Caching
- Introduction
- Warning!
- Report Caching
- Demo:Report Caching
- Creating Expiration Schedules
- Creating Shared Schedule
- Demo:Schedules
- How Caching Works
- Parameterized Reports
- Cache Invalidation
- Demo:Parameters
- Report Snapshots
- Creating a Snapshot
- Demo:Creating a Snapshot
- Snapshots and Parameters
- Demo:Snapshot with Parameter
- Report History
- Configuring Report History
- Snapshot Retention
- Viewing Report History
- Demo:Create History
- Summary

Subscriptions
- Introduction
- Creating Subscriptions
- Parts of Subscription
- Creating Standard Subscription
- Demo:Creating Subscription
- Subscriptions and Parameters
- Maintaining Subscriptions
- Demo:Subscriptions
- Data-driven Subscriptions
- Data-driven Query
- File Share Data-driven
- Demo:File Share Data-driven
- Email Data-driven Subscription
- Demo:Email Data-driven
- Null Delivery Data-driven
- Demo:Null Delivery
- Summary

Two Report Builders
- Introduction
- Two Report Builders
- Report Builder 1.0
- Report Builder 2.0
- Which Report Builder to use?
- Launching Report Builder 2.0
- Report Manager Link
- Update Report Builder Link
- Demo:Report Builder 1.0 + 2.0
- Report Builder Data Sources
- Login, Shared Data, Folder
- Creating Report Builder Folder
- Demo:Creating Info
- Getting Started RB 2.0
- New Table or Matrix Wizard
- Demo:New Table or Matrix
- Using New Chart Wizard
- Demo:Chart Wizard
- Summary

Creating Reports
- Introduction
- Constructing a Report
- Tour Around Report Builder
- Report Builder Button
- Report Design Surface
- Ribbon Bar
- Report Data Pane
- Properties Window
- Grouping Pane
- Creating a Tabular Report
- Demo:Tabular Report
- Adding a Group to a Report
- Demo:Adding a Group
- Creating Matrix Reports
- Demo:Create Matrix Report
- Adding Totals to a Report
- Demo:Adding Totals to Groups
- Creating Charts
- Demo:Create Chart
- Summary