

Implementing and Maintaining Microsoft SQL Server 2008 Reporting Services

Length	: 3 Days (24 Hours)
Language(s)	: English
Audience(s)	: IT Professionals
Level	: 200
Technology	: Microsoft SQL Server 2008
Delivery Method	: Instructor-led (classroom)

About this Course

This three-day instructor-led course teaches students how to implement a Reporting Services solution in an organization. The course discusses how to use the Reporting Services development tools to create reports, and how to use the Reporting Services management and administrative tools to manage a Reporting Services solution.

This course will also teach how to create various kinds of dashboards using Reporting Services.

Audience Profile

This course is intended for information technology (IT) professionals and developers who need to implement reporting solutions by using Microsoft SQL Server 2008 Reporting Services.

At Course Completion

After completing this course, students will be able to:

- Describe SQL Server Reporting Services and its components.
- Create a Reporting Services report.
- Enhance a Reporting Services report.
- Create and manipulate data sets.
- Use report models to implement reporting for business users.
- Configure report publishing and execution settings.
- Implement subscriptions for reports.
- Administer Reporting Services.
- Implement custom Reporting Services applications.

Prerequisites

Before attending this course, students must have:

- Exposure to creating reports in Microsoft Access or other third-party reporting products, such as Crystal Reports.
- Conceptual understanding of the push and pull distribution/subscription paradigm.
- Experience navigating the Microsoft Windows Server environment.
- Experience with Windows Services (starting and stopping).
- Experience creating service accounts and permissions.
- Experience with Microsoft SQL Server, including:
 - SQL Server Agent.
 - SQL Server query language (SELECT, INSERT, UPDATE and DELETE).
 - SQL Server System tables.
 - SQL Server accounts (users and permissions).

Course Outline

Module 1: Introduction to Microsoft SQL Server Reporting Services

The students will be introduced to the role that Reporting Services plays in an organization's reporting life cycle, the key features offered by Reporting Services, and the components that make up the Reporting Services architecture.

Topics

- Real-time Reporting Scenario
- Why SSRS?
- Salient features of SSRS
- SQL Server 2008 Editions and Features
- Review Hardware Requirements for SSRS
- Review Software Requirements for SSRS
- Review Configuration Prerequisites
- Reporting Services Tools
- Enterprise Reporting Life Cycle
- Reporting Services Components
- Reporting Services Architecture
- Reporting Services Application Databases

Hands-On Lab

- (Level 200): SQL Server 2008 Reporting Services Installation
- (Level 200): Various Components of SSRS
- (Level 200): Exploring Report Designer
- (Level 200): Exploring Reporting Manager
- (Level 200): Reporting Services Application Databases Overview

Module 2: Authoring Basic Reports

The students will learn the fundamentals of report authoring, including configuring data sources and data sets, creating tabular reports, summarizing data, and applying basic formatting.

Topics

- Report Designers
- Report Design Elements
- Creating a Basic Table Report
- Configuring Headers and Footers
- Formatting Report Pages
- Report Layout Types
- Page Layout
- Calculating Values
- Multicolumn Reports
- Matrix Reports
- Reports from Other Formats and Products

Hands-On Lab

- (Level 200): Creating a Basic Table Report
- (Level 200): Formatting Report Pages
- (Level 200): Adding Calculated Values

Module 3: Advanced Report Design

The students will learn about navigational controls and some additional types of data regions, and how to use them to enhance a basic report.

Topics

- Interactive Navigation
- Displaying Data
- Creating Report Templates
- Creating Composite Reports
- Designing Subreports
- Using Expressions and Custom Code (.NET assemblies)
- Designing Chart Reports
- Designing Gauge Reports

Hands-On Lab

- (Level 200): Using Dynamic Visibility
- (Level 200): Using Document Map
- (Level 200): Initiating Actions
- (Level 200): Using a List Data Region
- (Level 200): Creating a Tablix Report
- (Level 200): Adding Chart Subreports to Parent Report
- (Level 200): Using Gauge Data Region

Module 4: Manipulating Data Sets

The students will explore data sets to greater depth, including the use of alternative data sources and interacting with a data set through the use of parameters. Students will learn how to dynamically modify the data set underlying a data region by allowing parameters to be sent to the underlying query, as well as will learn to use best practices to implement static and dynamic parameter lists when interacting with queries and stored procedures.

Topics

- Defining Report Data
- Using Parameters and Filters
- Using Parameter Lists
- Using Stored Procedures and Using Views
- Using Other Data Sources

Hands-On Lab

- (Level 200): Using Parameters to Restrict Query Results

- (Level 200): Using Parameters to Filter Report Data
- (Level 200): Creating Dynamic Parameter Lists
- (Level 200): Using Parameters with a Stored Procedure and Views
- (Level 200): Displaying all Categories in a Parameter List

Module 5: Using Report Models

The students will learn how to create a report model so that business users can create their own reports without using the full Report Designer development environment. Students will also learn how to use Report Builder to create a report from a report model.

Topics

- Report Model Data Sources
- Building and Manipulating a Data Source View
- Working with Reporting Services Report Models
- Deploying the Report Model
- Report Model from Analysis Services Databases
- Using Report Builder 2.0

Hands-On Lab

- (Level 200): Creating a Report Model
- (Level 200): Using Report Builder to Create a Report
- (Level 200): Deploying the Report Model
- (Level 200): Generating Report Models from Analysis Services

Module 6: Publishing and Exporting Reports

The students will learn various options you can use to publish reports to the report server and execute them.

Topics

- Publishing Reports
- Executing Reports
- Creating Cached Instances
- Creating Snapshots and Report History

Hands-On Lab

- (Level 200): Publishing Reports
- (Level 200): Executing Reports
- (Level 200): Configuring and Viewing a Cached Report
- (Level 200): Configuring and Viewing a Snapshot Report

Module 7: Using Subscription to Distribute Report

The students will learn how to implement subscriptions so that you can distribute reports either automatically by e-mail or by publishing reports to a shared folder.

Topics

- Introduction to Report Subscriptions
- Creating Report Subscriptions
- Using Report Subscriptions
- Managing Report Subscriptions

Hands-On Lab

- (Level 200): Creating a Standard Subscription
- (Level 200): Creating a Data-Driven Subscription

Module 8: Administering Reporting Services

The students will learn how to administer the Reporting Services server, how to monitor and optimize the performance of the report server, how to maintain the reporting server databases, and how to keep the system secure.

Topics

- Reporting Server Administration
- Performance and Reliability Monitoring
- Administering Report Server Databases
- Security Administration
- Backup and Recovery
- Server Configuration
- Upgrading to Reporting Services 2008

Hands-On Lab

- (Level 200): Using Reporting Services Configuration Manager
- (Level 200): Securing a Reporting Services Site
- (Level 200): Securing Items

Module 9: Analytics and Data Visualization

The students will learn how to create dashboard using Reporting Services reports.

Topics

- Analytics and Data Visualization
- Dashboards using Chart and Gauge
- Publishing Dashboards