

## Implementing and Maintaining Microsoft SQL Server 2008 Reporting Services

### Course 6236A: Three days; Instructor-Led

#### Introduction

Elements of this syllabus are subject to change.

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.

#### Audience

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, UPDATE, INSERT, and DELETE).
  - SQL Server System tables.
  - SQL Server accounts (users and permissions).

### 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.

Lessons

- Lesson 1: Overview of SQL Server Reporting Services
- Lesson 2: Installing Reporting Services
- Lesson 3: Reporting Services Tools

Lab: Introduction to Microsoft SQL Server Reporting Services

- Exercise 1: (Level 200) Exploring Report Designer
- Exercise 2: (Level 200) Exploring Report Manager

After completing this module, students will be able to:

- Describe the features of SQL Server Reporting Services.
- Install Reporting Services.
- Describe the Reporting Services tools.

### 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.

Lessons

- Lesson 1: Creating a Basic Table Report
- Lesson 2: Formatting Report Pages
- Lesson 3: Calculating Values

Lab: Authoring Basic Reports

- Exercise 1 (Level 200): Creating a Basic Table Report
- Exercise 2 (Level 200): Formatting Report Pages
- Exercise 3 (Level 200): Adding Calculated Values

After completing this module, students will be able to:

- Create a basic table report.
- Format report pages.
- Calculate values for a report.

### Module 3: Enhancing Basic Reports

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

Lessons

- Lesson 1: Interactive Navigation
- Lesson 2: Displaying Data

Lab: Enhancing Basic Reports

- Exercise 1: (Level 200) Using Dynamic Visibility
- Exercise 2: (Level 200) Using Document Maps
- Exercise 3: (Level 200) Initiating Actions
- Exercise 4: (Level 200) Using a List Data Region
- Exercise 5: (Level 200) Creating a Tablix Report
- Exercise 6: (Level 200) Adding Chart Subreport to Parent Report

After completing this module, students will be able to:

- Create reports with interactive navigation.
- Display data in various formats.

#### Module 4: Manipulating Data Sets

The students will explore data sets to a 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.

Lessons

- Lesson 1: Defining Report Data
- Lesson 2: Using Parameters and Filters
- Lesson 3: Using Parameter Lists

Lab: Manipulating Data Sets

- Exercise 1: (Level 200) Using Parameters to Restrict Query Results
- Exercise 2: (Level 200) Using Parameters to Filter Report Data
- Exercise 3: (Level 200) Creating Dynamic Parameter Lists
- Exercise 4: (Level 200) Using Parameters with a Stored Procedure
- Exercise 5: (Level 200) Displaying All Categories in a Parameter List

After completing this module, students will be able to:

- Define report data.
- Use parameters and filters.
- Use parameter lists.

#### 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.

Lessons

- Lesson 1: Creating Report Models
- Lesson 2: Using Report Builder

Lab: Using Report Models

- Exercise 1: (Level 200) Creating a Report Model
- Exercise 2: (Level 200) Using Report Builder to Create a Report

After completing this module, students will be able to:

- Create Report Models.
- Use Report Builder.

**Module 6: Publishing and Executing Reports**

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

## Lessons

- Lesson 1: Publishing Reports
- Lesson 2: Executing Reports
- Lesson 3: Creating Cached Instances
- Lesson 4: Creating Snapshots and Report History

## Lab: Publishing and Executing Reports

- Exercise 1: (Level 200) Publishing Reports
- Exercise 2: (Level 200) Executing Reports
- Exercise 3: (Level 200) Configuring and Viewing a Cached Report
- Exercise 4: (Level 200) Configuring and Viewing a Snapshot Report

After completing this module, students will be able to:

- Publish reports.
- Execute reports.
- Create cached instances.
- Create snapshots and report history.

**Module 7: Using Subscriptions to Distribute Reports**

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.

## Lessons

- Lesson 1: Introduction to Report Subscriptions
- Lesson 2: Creating Report Subscriptions
- Lesson 3: Managing Report Subscriptions

## Lab: Using Subscriptions to Distribute Reports

- Exercise 1: (Level 200) Creating a Standard Subscription
- Exercise 2: (Level 200) Creating a Data-Driven Subscription

After completing this module, students will be able to:

- Describe report subscriptions.
- Create report subscriptions.
- Manage report subscriptions.

### 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 Services databases, and how to keep the system secure.

#### Lessons

- Lesson 1: Reporting Server Administration
- Lesson 2: Performance and Reliability Monitoring
- Lesson 3: Administering Report Server Databases
- Lesson 4: Security Administration
- Lesson: 5 Upgrading to Reporting Services 2008

#### Lab: Administering Reporting Services

- Exercise 1: (Level 200) Using Reporting Services Configuration Manager
- Exercise 2: (Level 200) Securing a Reporting Services Site
- Exercise 3: (Level 200) Securing Items

After completing this module, students will be able to:

- Administer the reporting server.
- Monitor performance and reliability.
- Administer the Report Server databases.
- Administer security.
- Upgrade to Reporting Services 2008.

### Module 9: Programming Reporting Services

The students will learn how to query Reporting Services information programmatically and how to automate report management tasks. Students will also learn how to render reports without relying on Report Manager, and how to extend the feature set of a report server by creating custom code.

#### Lessons

- Lesson 1: Querying for Server Information Using a Web Service
- Lesson 2: Automating Report Management
- Lesson 3: Rendering Reports
- Lesson 4: Creating Custom Code

#### Lab: Programming Reporting Services

- Exercise 1: (Level 200) Using URL Access to Display a Report
- Exercise 2: (Level 200) Building a Reporting Services Web Service Client
- Exercise 3: (Level 200) Using the Report Viewer Control

After completing this module, students will be able to:

- Query server information using a Web service.
- Automate report management.
- Render reports.
- Create custom code.