

# Course Outline

## 55128 - Writing Reports with Report Builder and SSRS Level 2

### General Description

In this two-day course, students will experience a hands-on, deep dive into reporting techniques for analyzing data using paginated reports, charts, and scorecards. We transfer the skills and insights needed for real world analysis and reporting of data using course content, discussions, demonstrations, and scenario-based labs. Students can work through objectives based on reporting requirements or they can complete the work by following step-by-step instructions.

We will work with interactive reporting using parameters, create custom reports with rectangles and lists, use conditional formatting to enhance data presentation, use complex formatting expressions, add images to reports, provide drilldown capability, connect server-hosted reports, analyze data with mini-charts, mini-gauges, and scorecards. In addition, we will also troubleshoot and resolve failing reports and features early and often. All features covered in this course have become normal requirements in today's reporting landscape. Report Builder is available for all supported versions of Microsoft SQL Server and this course content can be applied against any of those versions.

### Audience Profile

This course is intended for experienced Report Builder and SSRS report writers who are business analysts, programmer analysts, data analysts, developers, database administrators, and IT professionals.

### Prerequisites

Course 55123: Writing Reports with Report Builder and SSRS Level 1

### Outcomes

At the end of the course, students will be able to:

- Incorporate the use of single valued parameters, multi-valued parameters, range parameters, and cascading parameters in a report
- Add default values for parameters
- Create a list of available values for a parameter
- Create date range parameters
- Troubleshoot failing parameter reports
- Create free-form reports with rectangles
- Use master-detail data with report objects
- Troubleshoot and resolve master-detail data errors in reports
- Use conditional formatting to enhance data presentation
- Define and implement running values
- Create TOP N reports



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- Format reports for presentation and analysis
- Troubleshoot and resolve failing TOP N filters and reports
- Use a Visual Basic procedure in a report
- Use images to enhance reports and display images stored in databases
- Use advanced report formatting techniques
- Understand composite reports which use different page layouts
- Incorporate the use of cascading parameters in reports
- Use mini-charts and mini-gauges in reports
- Use mini-gauges to create a scorecard
- Troubleshoot and resolve failing features of a mini-chart report

## Course Details

Course code: 55128

Duration: 2 days

Starting time: 9am

Finishing time: 4.30pm

## Booking guidelines

Contact our learning consultants on 1300 86 87246 and we will assist you with your booking.



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## ➤ **Module 1: Parameter Reports**

This module reviews dynamic reporting through the use of parameters. Parameters allow the report writer the ability to provide self-service reporting wherein the report audience can choose the data to view (e.g., geographic, departmental, range of values, et al). Parameters can be defined and implemented at the Dataset level, the Report level, or both, depending on the report writers actions.

### **Lessons**

- Parameterized reporting
- Creating and Modifying Parameters
- Creating Default Values and Available Values for Parameters

### **Lab 1: Parameterized Reports Create a Report which uses a Single-Value Parameter**

- Create a Report which uses a Multi-Value Parameter
- Create a Report which provides a List of Available Parameter Values to Choose From
- Create a Report with using Multiple Parameters, Default Parameter Date Range Values, and Available Values
- Troubleshoot Failing Parameter Reports which use Multiple Parameters, Default Parameter Values, and Available Parameter Values

After completing this module, students will be able to:

- Describe the key benefits and features of parameters.
- Create parameterized queries and parameterized reports.
- Create parameters which accept single values, multiple values, and a list of available values.
- Understand and use multiple parameters, range parameters, default, cascading, and available parameter values.
- Troubleshoot and resolve failing parameter reports.

## ➤ **Module 2: Creating Custom Reports with Rectangles and Master-Detail Data**

This module introduces the rectangle. Rectangles allow total design control over the report and it is a key feature of the list data region. While table and matrix reports bind you to a table or crosstabular data presentation, this free-form feature affords the report writer the ability to customize the report to their preference, standard, or reporting requirement. Rectangles allow the nesting of data, which is data in a master-detail data configuration.

### **Lessons**

- Introducing Rectangles and Lists
- Create Reports using Rectangles and List Data Regions
- Modify Reports which use Rectangles and List Data Regions

### **Lab 1: Create Custom Reports using Lists, Master-Detail Data, and Rectangles**

- Create a Report with Rectangles, Lists, Tables, and Master-Detail Data
- Create an Invoice Report with a Rectangles, Lists, Tables, and Text Boxes

After completing this module, students will be able to:

- Describe the benefit of rectangles and lists in reporting scenarios.
- Create reports with lists which use master-detail data design elements.
- Create custom reports using rectangles, lists, tables, and text boxes.
- Troubleshoot and resolve master-detail data errors in reports.

## ➤ **Module 3: Enhancing Reports with Formatting and Complex Expressions**

This module introduces several new report formatting techniques which allow the report writer better control over data displayed in the report.

### **Lessons**

- Enhancing Report Appearance

- Using Running Values to Provide Totals and Subtotals
- Creating and Using Top N Reports

### **Lab 1: Enhancing Reports with Complex Expressions**

- Analyze Report Data with Conditional Formatting
- Use Complex Expressions in Charts
- Calculate a Running Value
- Create TOP N Reports
- Format a Table with Alternate Row Shading
- Matrix Report Alternate Row Shading with Visual Basic

After completing this module, students will be able to:

- Enhance reports and data presentation by adding conditional formatting.
- Elevate chart data presentation with complex expressions.
- Incorporate running values at the group and dataset to calculate KPI's and other metrics.
- Create reports which display best in class data and information to the audience.
- Use alternate row banding in table and matrix reports to improve readability of the report.
- Troubleshoot and resolve failing TOP N filters and reports.

## ➤ **Module 4: Enhance Reports with Images and Subreports**

In this module, students will add images and reports (subreports) to reports. Subreports require report hosting through SQL Server Reporting Services (SSRS) and students will be introduced to this feature in this module. Image access and availability can also be controlled through SSRS feature sets.

### **Lessons**

- Adding Images to Reports
- Retrieving Images from a Database
- Introducing SQL Server Reporting Services Report Manager
- Adding Subreports to Reports

# Course Outline

## Lab 1: Working with Images and Subreports

- Enhancing an Existing Report with Images
- Adding Subreports to a Report
- Adding Parameterized Subreports to Reports

After completing this module, students will be able to:

- Describe the available options for adding images to reports.
- Add images to reports.
- Describe features of SSRS Report Manager.
- Create shared data sources in SSRS.
- Add subreports and parameterized subreports to reports.

## ➤ Module 5: Drilldown and Drillthrough Reports

This module explains how to add drilldowns to your report to allow your audience the ability to uncover layers of detail about your summarized content. SSRS provides two ways to accomplish this feature set: drilldowns and drillthroughs. Drilldown data is stored in the same report and revealed or hidden based on interactions with the report viewer. Drillthrough data is stored in a different report and is displayed as a linked report. The drillthrough report can be parameterized or unparameterized.

### Lessons

- Drilldowns
- Drillthroughs

## Lab 1: Summarize Data with Drilldowns and Drillthroughs

- Adding Drilldowns to Control Report Detail
- Add Drilldown Behavior to a Group
- Add Drilldown Behavior to a Group Hierarchy
- Analyze Data using Drillthrough Behaviors in a Report

After completing this module, students will be able to:

- Describe the key features of drilldowns and drillthroughs.
- Add drilldowns to reports.

- Add drillthroughs to reports.
- Add parameterized drillthroughs to reports.

## ➤ Module 6: Inline Data Analysis with Mini-charts and Mini-Gauges

This module introduces the use of mini-charts and mini-gauges in report writing. These mini features allow graphical reporting at the row-level when incorporating them in table, matrix, and list data regions in the report design. These graphical tools will analyze data from the row or collection of rows. These mini-charts and mini-gauges are essential when creating dashboards, key performance indicators, and scorecards.

### Lessons

- Mini-Charting with Graphs of Data
- Mini-Charting with Bars of Data
- Mini-Gauging with Scorecards

## Lab 1: Analyze Data with Mini-Charts and Mini-Gauges

- Analyze Data with Indicators and Data Bars
- Analyze Data with Sparklines
- Use Indicators to Analyze Data with a Scorecard

After completing this module, students will be able to:

- Describe the key features of using mini-charts and mini-gauges in reports.
- Analyze data with mini-charts and mini-gauges.
- Create scorecards using mini-gauges.
- Troubleshoot and resolve a failing mini-chart report to determine when this feature is not available.