

Microsoft SQL Server 2005 Reporting Services

Table of Contents

INTRODUCTION	INTRO-1
Prerequisites	INTRO-2
Installing the Practice Files	INTRO-3
Software Requirements	INTRO-3
Sample Database	INTRO-3
Installation	INTRO-4
About the Author	INTRO-5
INTRODUCING SQL SERVER REPORTING SERVICES	1-1
Tour of Features	1-2
Feature Overview	1-2
Supported Report Types	1-2
Supported Output Formats	1-3
Data Sources	1-3
Programming Reporting Services	1-3
Deployment and Administration Features	1-4
Reporting Services Architecture	1-5
Report Server	1-6
Reporting Services Repository	1-6
Report Manager	1-6
Report Designer	1-8
Reporting Services Configuration Tool	1-9
Report Server Command-Line Utilities	1-10
Report Builder	1-10
Model Designer	1-11
Reporting Services Terminology	1-13
Data Source	1-13
Dataset	1-13
Data Region	1-14
Table	1-14
Matrix	1-15
List	1-15
Chart	1-16
Mixing and Matching Regions	1-16
Reporting Services Editions	1-17
Standard Edition	1-17

Enterprise Edition.....	1-17
Developer Edition.....	1-17
Taking Reporting Services for a Spin	1-18
Create a Report Using the Wizard	1-18
LAB 1: INTRODUCING SQL SERVER REPORTING SERVICES.....	1-31
Lab 1 Overview.....	1-32
Create a Report Using the Report Wizard	1-33
CREATING REPORTS.....	2-1
Deconstructing Reporting Services	2-2
Reporting Services Project Files.....	2-2
Different Ways to Create a Report.....	2-3
Reporting Services Designer Views.....	2-7
Shared Data Sources	2-12
Why Use a Shared Data Source?.....	2-12
Creating a Shared Data Source.....	2-12
Creating Reports from Scratch	2-16
Six Steps to Creating a Basic Report.....	2-16
Step 1: Create the Report.....	2-16
Step 2: Grab the Right Data with Data View.....	2-18
Step 3: Present Data with Layout View.....	2-26
Step 4: Preview the Report.....	2-38
Step 5: Deploy the Report to the Server	2-42
Step 6: Call Up a Report Using a Web Browser	2-45
LAB 2: CREATING REPORTS.....	2-51
Lab 2 Overview.....	2-52
Create a Shared Data Source	2-53
Create a Report from Scratch.....	2-55
Deploy a Report and View it in Internet Explorer.....	2-60
CALCULATIONS AND FORMATTING.....	3-1
Creating Expressions.....	3-2
Expression Rules	3-2
Using the Expression Editor.....	3-3
Mathematical Calculations.....	3-6
String Expressions	3-6
Conditional Tests	3-8
Null Handling.....	3-10
Using Built-In Functions.....	3-10

Creating and Using Custom Functions	3-16
Using the Global Collections.....	3-19
Fields Collection.....	3-19
Globals Collection	3-19
User Collection.....	3-21
Parameters Collection.....	3-21
ReportItems Collection.....	3-22
Formatting Items.....	3-24
Formatting Text Boxes Using the Toolbars.....	3-24
Formatting Text Boxes Using the Properties Window	3-25
Formatting Text Boxes Using the Textbox Properties Dialog Box.....	3-28
Formatting Table Region Rows and Columns	3-32
Merging and Splitting Cells	3-33
Conditional Formatting.....	3-35
LAB 3: CALCULATIONS AND FORMATTING.....	3-43
Lab 3 Overview.....	3-44
Reigning in a Long Text Field	3-45
Calculating Sales of Books	3-49
Highlighting Large Book Sales.....	3-52
GROUPING AND SORTING	4-1
Creating Groups	4-2
Adding a Group to a Report.....	4-2
Adding Fields to a Group	4-4
Ordering Groups	4-6
Nesting Groups	4-7
Editing Group Properties.....	4-8
Calculating Totals and Percentages	4-12
An Example: Counting Rows in rptCustomersGrouped ByCountry2	4-12
An Example: Summing Sales in rptEmployeeSales	4-13
Scope.....	4-16
Calculating Percentages	4-18
Interactive Sorting.....	4-21
An Example: rptCustomersIntSort	4-22
An Example: rptCustomersIntSort2	4-24
Creating Drill-Down Reports	4-26
A Drill-Down Example	4-27

LAB 4: GROUPING AND SORTING	4-33
Lab 4 Overview	4-34
Create a Report with Nested Groups.....	4-35
Create a Report with Percentages.....	4-38
Create a Drill-Down Report.....	4-42
WORKING WITH PARAMETERS	5-1
Creating Report Parameters.....	5-2
Parameters and Stored Procedures	5-2
Displaying Parameter Values on the Report.....	5-8
Using Parameters with Ad-Hoc SQL.....	5-10
Using Unbound Parameters.....	5-12
Creating Drop-Down List Parameters.....	5-14
Cascading Parameters	5-17
Multivalued Parameters	5-21
Creating a Report Employing a Multivalued Parameter.....	5-21
Referencing the Multivalued Parameter Values in a Heading.....	5-22
Debugging Parameter Issues	5-25
LAB 5: WORKING WITH PARAMETERS	5-29
Lab 5 Overview	5-30
Create a Parameterized Report.....	5-31
Create a Drop-Down List Parameter	5-36
Work with Multivalued Parameters	5-40
CREATING MATRIX REPORTS AND CHARTS.....	6-1
Creating a Matrix Report.....	6-2
Basic Steps to Create a Matrix Report.....	6-2
Accessorizing Your Matrix Reports.....	6-6
Adding Subtotals.....	6-7
Adding Row and Column Groups	6-8
Adding Data Cells	6-12
Using the Corner Cell.....	6-14
Creating a Chart	6-15
Basic Steps to Create a Chart	6-15
Chart Anatomy	6-17
Formatting a Chart.....	6-18
Adding Additional Fields to a Chart.....	6-21
Adding a Series to a Chart.....	6-21

Exploring the Charting Possibilities	6-23
Bar Charts.....	6-24
Line Charts.....	6-24
Pie and Doughnut Charts.....	6-25
LAB 6: CREATING MATRIX REPORTS AND CHARTS	6-31
Lab 6 Overview.....	6-32
Create a Matrix Report with Subtotals.....	6-33
Create a Stacked Column Chart.....	6-35
Create a Pie Chart with Point Labels.....	6-38
MANAGING REPORTING SERVICES	7-1
Deploying Reporting Services Projects	7-2
Planning for Deployment.....	7-2
Setting the Active Configuration.....	7-2
Creating a Custom Configuration.....	7-3
Configuring the Report Project.....	7-3
Deploying a Reporting Services Project	7-5
Deploying Individual Reports and Data Sources	7-6
Redeploying Shared Data Sources.....	7-6
Exporting Reports and Printing.....	7-7
Exporting Reports	7-7
Client-Side Printing in SQL Server 2005 Reporting Services	7-10
Managing Reports with the Browser-Based Report Manager	7-12
Displaying or Hiding Report Manager Details	7-13
Navigating Around Report Manager	7-14
Running Reports	7-15
Managing Folders and Files.....	7-15
Managing Reports and Data Sources.....	7-16
Creating Linked Reports	7-16
Managing Generic Site Settings	7-20
Other Things You Can Do with Report Manager	7-20
Using the SQL Server Management Studio-Based Reporting Services Manager.....	7-21
Managing Reports.....	7-22
LAB 7: MANAGING REPORTING SERVICES.....	7-29
Lab 7 Overview.....	7-30
Deploy a Report to the Local Reporting Services Server	7-31

Export a Report to PDF and Excel Formats	7-33
Create Linked Reports.....	7-37
SECURITY	8-1
Reporting Services Security	8-2
Securing Access to Reports	8-3
Authorizing Users at the Home Level	8-3
Authorizing Users at Project Level.....	8-7
Managing Reporting Services Roles.....	8-11
Reporting Services Virtual Directory Security.....	8-14
Requiring SSL.....	8-16
Data Source Security.....	8-18
Managing Data Source Security from Visual Studio	8-18
Four Choices for Managing Credentials	8-19
Which SQL Server Permissions Are Needed for a Report?	8-21
Managing Data Source Security from the Browser-Based Report Manager	8-22
Managing Data Source Security from the SQL Server Management Studio-Based Report Manager	8-23
LAB 8: SECURITY.....	8-29
Lab 8 Overview.....	8-30
Set Up Report Server Security Using Browser-Based Report Manager.....	8-31
Set Up Project Security Using SQL Server Management Studio-Based Report Manager	8-35
Managing Data Source Security	8-41
PROGRAMMING REPORTING SERVICES.....	9-1
The Reporting Services APIs.....	9-2
URL Access	9-3
Executing Reports via URLs	9-3
Integrating a Report into a Web Application Using URL Access	9-9
Using the Report Viewer Controls	9-16
Server vs. Client Reports	9-16
Using the Web Report Viewer Control with Server Reports	9-16
Using the Windows Report Viewer Control with Server Reports	9-21
Using the Report Viewer Control with Client Reports	9-24
Using the Web Report Viewer Control with Client Reports.....	9-24

Using the Windows Report Viewer Control with Client Reports	9-30
LAB 9: PROGRAMMING REPORTING SERVICES	9-35
Lab 9 Overview	9-36
Integrate a Reporting Services into a Web App Using URL Access.....	9-37
Employ the Server Report Viewer Control in a Web App	9-46
Employ the Client Report Viewer Control in a Web App.....	9-49
ADVANCED REPORTING SERVICES PROGRAMMING	10-1
Using the Reporting Services Web Service.....	10-2
A Tale of Two Endpoints.....	10-2
Why Use the Web Service?	10-3
Why Not Use the Web Service API?.....	10-3
Using the Report Server Web Service	10-3
An Example: The CallReportServiceVB.aspx and CallReportServiceCS.aspx Pages	10-8
Working with Custom Assemblies	10-18
What's Wrong with the Code Window?.....	10-18
Creating a Custom Assembly	10-19
A Custom Assembly Example.....	10-20
Security and Custom Assemblies	10-28
LAB 10: ADVANCED REPORTING SERVICES PROGRAMMING	10-33
Lab 10 Overview	10-34
Call the Reporting Services Web Service.....	10-35
Create and Deploy a Custom Assembly.....	10-43
SNAPSHOTS AND SUBSCRIPTIONS	11-1
Report Caching and Snapshots.....	11-2
Report Caching	11-2
Report Snapshots	11-6
Report History	11-8
Creating Subscriptions.....	11-12
Parts of a Subscription.....	11-12
Creating a Standard Subscription	11-13
Creating Data-Driven Subscriptions	11-17
Creating the Data-Driven Query	11-17
A Data-Driven Example	11-20
LAB 11: SNAPSHOTS AND SUBSCRIPTIONS.....	11-31

Lab 11 Overview	11-32
Enable Caching for a Report	11-33
Create a Snapshot with History	11-37
Create a File-Share Standard Subscription	11-40
AD-HOC REPORTING WITH REPORT BUILDER	12-1
The Report Builder Architecture	12-3
How it Works	12-3
Creating Report Model Projects.....	12-4
Creating the Project	12-4
Adding a Data Source to a Report Model Project	12-6
Creating Data Source Views.....	12-7
Generating Report Models Using the Report Model Wizard.....	12-9
The Generated Model	12-14
Refining and Enhancing the Report Models	12-14
Deploying Report Models.....	12-17
Securing Report Models	12-18
Using Report Builder.....	12-22
What Can You Do with Report Builder?.....	12-22
Installing Report Builder.....	12-22
Running Report Builder.....	12-23
Drilling Down into Report Builder	12-25
Matrix and Charts.....	12-37
LAB 12: AD-HOC REPORTING WITH REPORT BUILDER	12-43
Lab 12 Overview	12-44
Create a Report Model	12-45
Create a Tabular Report Builder Report	12-48
Create a Column Chart Report Using Report Builder	12-51
INDEX.....	INDEX-1