BOCE10

SAP Crystal Reports for Enterprise: Fundamentals of Report Design

SAP BusinessObjects - Business Intelligence

Course Outline

Course Version: 96 Revision A
Course Duration: 2 Day(s)
Publication Date: 14-01-2013
Publication Time: 1457

Copyright

Copyright © SAP AG. All rights reserved.

No part of this publication may be reproduced or transmitted in any form or for any purpose without the express permission of SAP AG. Additionally this publication and its contents are provided solely for your use, this publication and its contents may not be rented, transferred or sold without the express permission of SAP AG. The information contained herein may be changed without prior notice.

Some software products marketed by SAP AG and its distributors contain proprietary software components of other software vendors.

Trademarks

- Microsoft®, WINDOWS®, NT®, EXCEL®, Word®, PowerPoint® and SQL Server® are registered trademarks of Microsoft Corporation.
- IBM®, DB2®, OS/2®, DB2/6000®, Parallel Sysplex®, MVS/ESA®, RS/6000®, AIX®, S/390®, AS/400®, OS/390®, and OS/400® are registered trademarks of IBM Corporation.
- ORACLE® is a registered trademark of ORACLE Corporation.
- INFORMIX®-OnLine for SAP and INFORMIX® Dynamic ServerTM are registered trademarks of Informix Software Incorporated.
- UNIX®, X/Open®, OSF/1®, and Motif® are registered trademarks of the Open Group.
- Citrix®, the Citrix logo, ICA®, Program Neighborhood®, MetaFrame®, WinFrame®, VideoFrame®, MultiWin® and other Citrix product names referenced herein are trademarks of Citrix Systems, Inc.
- HTML, DHTML, XML, XHTML are trademarks or registered trademarks of W3C®, World Wide Web Consortium, Massachusetts Institute of Technology.
- JAVA® is a registered trademark of Sun Microsystems, Inc.
- JAVASCRIPT® is a registered trademark of Sun Microsystems, Inc., used under license for technology invented and implemented by Netscape.
- SAP, SAP Logo, R/2, RIVA, R/3, SAP ArchiveLink, SAP Business Workflow, WebFlow, SAP EarlyWatch, BAPI, SAPPHIRE, Management Cockpit, mySAP.com Logo and mySAP.com are trademarks or registered trademarks of SAP AG in Germany and in several other countries all over the world. All other products mentioned are trademarks or registered trademarks of their respective companies.

Disclaimer

THESE MATERIALS ARE PROVIDED BY SAP ON AN "AS IS" BASIS, AND SAP EXPRESSLY DISCLAIMS ANY AND ALL WARRANTIES, EXPRESS OR APPLIED, INCLUDING WITHOUT LIMITATION WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WITH RESPECT TO THESE MATERIALS AND THE SERVICE, INFORMATION, TEXT, GRAPHICS, LINKS, OR ANY OTHER MATERIALS AND PRODUCTS CONTAINED HEREIN. IN NO EVENT SHALL SAP BE LIABLE FOR ANY DIRECT, INDIRECT, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR PUNITIVE DAMAGES OF ANY KIND WHATSOEVER, INCLUDING WITHOUT LIMITATION LOST REVENUES OR LOST PROFITS, WHICH MAY RESULT FROM THE USE OF THESE MATERIALS OR INCLUDED SOFTWARE COMPONENTS.

Contents

Course Overview ..... **v**

Course Goals v
Course Objectives v

Unit 1: Planning a Report **1**

Defining database concepts 1
Planning and developing a report prototype 1

Unit 2: Requirements to build a report **2**

Log onto SAP BusinessObjects BI platform 2
Select a Data Source 2

Unit 3: Creating a Report **3**

Connecting to a Data Source 3
Create a query to retrieve data from the data source 3
Using the Report Design Environment 3
Report Sections 3
Working with field objects 4
Save a report 4

Unit 4: Report Layout and Formatting **5**

Setting Page properties 5
Formatting options 5

Unit 5: Selecting Data **6**

Editing a query 6
Inserting additional filter conditions 6
Modifying query filters 6
Applying time based filters 6

Unit 6: Sorting, Grouping and Totaling **7**

Sorting Data 7
Grouping data 7
Create nested and multiple groups 7
Create a custom group 7
Group on time-based data 8
Total grouped data 8

© SAP AG. All rights reserved.

Total column data 8

Unit 7: Additional Report Objects 9

Predefined Objects 9
Graphical Objects 9

Unit 8: Formulas 10

Formulas overview 10
Working with the Formula Workshop 10
Creating and modifying formulas 10
Applying Boolean formulas 10
Applying If-Then-Else formulas 11
Applying date calculations 11
Applying numeric calculations 11
Applying string manipulation 11

Unit 9: Conditional Formatting 12

Formatting Objects conditionally 12
Formatting Fields conditionally with formulas 12
Formatting Sections 12
Formatting Sections conditionally 12
Drill down on Sections 13

Unit 10: Charting 14

Charting Concepts 14
Charting on grouped data 14
Creating a chart on detailed data 14
Formatting Charts 14

Unit 11: Distributing Reports 15

Exporting a report 15
Saving to SAP BusinessObjects Business Intelligence Platform 15

© SAP AG. All rights reserved.

Course Overview

This 2-day instructor-led course on SAP Crystal Reports for Enterprise explains how to design, explore, visualize, and deliver reports. It also gives you comprehensive skills and in-depth knowledge to plan and create reports that will help you analyze and interpret data. As a business benefit, you will find that this course is an in-depth approach to the entire report creation cycle, from planning a report prototype to distributing a report.

Target Audience

This course is intended for the following audiences:

- Business Analysts
- Report Writers
- Report Designers
- Application Developers
- BI System Administrators

Course Prerequisites

Required Knowledge

- Windows conventions

Recommended Knowledge

- Basic database concepts

Course Goals

This course will prepare the participant to:

- Plan and create a report
- Organize and format data
- Apply record selection
- Create formulas and apply conditioning report
- Export and distribute reports

Course Objectives

After completing this course, the participant will be able to:

- Create, modify and enhance a Crystal Report

© SAP AG. All rights reserved.

© SAP AG. All rights reserved.

Unit 1

Planning a Report

Unit Overview

In this unit you will define database concepts and plan and develop a report prototype.

Lesson: Defining database concepts

Lesson Objectives

After completing this lesson, the participant will be able to:

- Define database terms

Lesson: Planning and developing a report prototype

Lesson Objectives

After completing this lesson, the participant will be able to:

- Determine the layout and content of a report
- Develop a prototype of a report
- Determine the layout and content for a report and then develop a paper prototype

© SAP AG. All rights reserved.

Unit 2

Requirements to build a report

Unit Overview

In this unit you will learn to log onto SAP BusinessObjects BI platform and select a data source.

Lesson: Log onto SAP BusinessObjects BI platform

Lesson Objectives

After completing this lesson, the participant will be able to:

- Log onto SAP BusinessObjects BI platform

Lesson: Select a Data Source

Lesson Objectives

After completing this lesson, the participant will be able to:

- Define possible Data Sources

© SAP AG. All rights reserved.

Unit 3

Creating a Report

Unit Overview

In this unit you will learn to connect to data sources, create queries to retrieve data, use the Report Design environment, create report sections, use field objects and save your reports.

Lesson: Connecting to a Data Source

Lesson Objectives

After completing this lesson, the participant will be able to:

- Connect to a Data Source

Lesson: Create a query to retrieve data from the data source

Lesson Objectives

After completing this lesson, the participant will be able to:

- Create a query to retrieve data from the data source
- Choose Result Objects

Lesson: Using the Report Design Environment

Lesson Objectives

After completing this lesson, the participant will be able to:

- Use the report Design Environment
- Place objects
- Work with report structure and preview mode

Lesson: Report Sections

Lesson Objectives

After completing this lesson, the participant will be able to:

- Understand the relevance of sections
- Get to know different sections

© SAP AG. All rights reserved.

Lesson: Working with field objects

Lesson Objectives

After completing this lesson, the participant will be able to:

- Position, align and resize field objects

Lesson: Save a report

Lesson Objectives

After completing this lesson, the participant will be able to:

- Save a report as local file or save to an Enterprise folder

© SAP AG. All rights reserved.

Unit 4

Report Layout and Formatting

Unit Overview

In this unit you will set page properties and formatting options.

Lesson: Setting Page properties

Lesson Objectives

After completing this lesson, the participant will be able to:

- Learn how to define Page properties

Lesson: Formatting options

Lesson Objectives

After completing this lesson, the participant will be able to:

- Get to know available report formatting options and how to define them

© SAP AG. All rights reserved.

Unit 5

Selecting Data

Unit Overview

In this unit you will learn to edit queries, insert additional filter conditions, modify query filters and apply time-based filters.

Lesson: Editing a query

Lesson Objectives

After completing this lesson, the participant will be able to:

- Edit a query
- Define sorting within a query
- Set a filter within a query

Lesson: Inserting additional filter conditions

Lesson Objectives

After completing this lesson, the participant will be able to:

- Learn how to insert additional filter conditions

Lesson: Modifying query filters

Lesson Objectives

After completing this lesson, the participant will be able to:

- Modify the query filter

Lesson: Applying time based filters

Lesson Objectives

After completing this lesson, the participant will be able to:

- Apply time based filters

© SAP AG. All rights reserved.

Unit 6

Sorting, Grouping and Totaling

Unit Overview

In this unit you will learn to sort and group data, created nested and multiple groups, create custom groups, create groups based on time-related data, and create totals for groups and columns.

Lesson: Sorting Data

Lesson Objectives

After completing this lesson, the participant will be able to:

- Sort data

Lesson: Grouping data

Lesson Objectives

After completing this lesson, the participant will be able to:

- Create and modify groups

Lesson: Create nested and multiple groups

Lesson Objectives

After completing this lesson, the participant will be able to:

- Create nested and multiple groups
- Reorder groups

Lesson: Create a custom group

Lesson Objectives

After completing this lesson, the participant will be able to:

- Add a custom group based on criteria not specified in the database

© SAP AG. All rights reserved.

Lesson: Group on time-based data

Lesson Objectives

After completing this lesson, the participant will be able to:

- Group on time

Lesson: Total grouped data

Lesson Objectives

After completing this lesson, the participant will be able to:

- Create subtotals

Lesson: Total column data

Lesson Objectives

After completing this lesson, the participant will be able to:

- Total on column data

© SAP AG. All rights reserved.

Unit 7

Additional Report Objects

Unit Overview

In this unit you will learn about predefined and graphical objects.

Lesson: Predefined Objects

Lesson Objectives

After completing this lesson, the participant will be able to:

- Recognize useful predefined objects and know how to insert them into a report

Lesson: Graphical Objects

Lesson Objectives

After completing this lesson, the participant will be able to:

- Create lines and boxes within a report and format them
- Insert pictures into a report

© SAP AG. All rights reserved.

Unit 8

Formulas

Unit Overview

In this unit you will learn about formulas and how to use the formula workshop. You will learn to create and modify Boolean formulas, If-Then-Else formulas, date calculations, numeric calculations, and use string manipulation.

Lesson: Formulas overview

Lesson Objectives

After completing this lesson, the participant will be able to:

- Understand different types of formulas
- Get to know formula components
- Get to know formula syntax

Lesson: Working with the Formula Workshop

Lesson Objectives

After completing this lesson, the participant will be able to:

- Use the Formula Workshop

Lesson: Creating and modifying formulas

Lesson Objectives

After completing this lesson, the participant will be able to:

- Create, modify and duplicate formulas

Lesson: Applying Boolean formulas

Lesson Objectives

After completing this lesson, the participant will be able to:

- Understand and create Boolean formulas

© SAP AG. All rights reserved.

Lesson: Applying If-Then-Else formulas

Lesson Objectives

After completing this lesson, the participant will be able to:

- Understand and create If-Then-Else formulas

Lesson: Applying date calculations

Lesson Objectives

After completing this lesson, the participant will be able to:

- Get to know basic date functions
- Search for functions
- Display help on functions

Lesson: Applying numeric calculations

Lesson Objectives

After completing this lesson, the participant will be able to:

- Create numeric calculations with formulas

Lesson: Applying string manipulation

Lesson Objectives

After completing this lesson, the participant will be able to:

- Get to know useful string manipulation functions

© SAP AG. All rights reserved.

Unit 9

Conditional Formatting

Unit Overview

In this unit you will learn to format objects conditionally, format fields conditionally with formulas, format sections, format sections conditionally, and drill down on sections.

Lesson: Formatting Objects conditionally

Lesson Objectives

After completing this lesson, the participant will be able to:

- Use the Conditional Formatting Dialog
- Use Conditional formulas

Lesson: Formatting Fields conditionally with formulas

Lesson Objectives

After completing this lesson, the participant will be able to:

- Format Fields conditionally with formulas

Lesson: Formatting Sections

Lesson Objectives

After completing this lesson, the participant will be able to:

- Get to know the options available to format sections

Lesson: Formatting Sections conditionally

Lesson Objectives

After completing this lesson, the participant will be able to:

- Format sections conditionally

© SAP AG. All rights reserved.

Lesson: Drill down on Sections

Lesson Objectives

After completing this lesson, the participant will be able to:

- Drill down on sections

© SAP AG. All rights reserved.

Unit 10

Charting

Unit Overview

In this unit you will learn about charting concepts, how to create charts using grouped and detailed data, and how to format your chart.

Lesson: Charting Concepts

Lesson Objectives

After completing this lesson, the participant will be able to:

- Insert and create a chart

Lesson: Charting on grouped data

Lesson Objectives

After completing this lesson, the participant will be able to:

- Create a chart on grouped data

Lesson: Creating a chart on detailed data

Lesson Objectives

After completing this lesson, the participant will be able to:

- Create a chart on detailed data

Lesson: Formatting Charts

Lesson Objectives

After completing this lesson, the participant will be able to:

- Get to know the formatting options of a chart
- Apply formatting options to a chart

© SAP AG. All rights reserved.

Unit 11

Distributing Reports

Unit Overview

In this unit you will learn how to export a report, and save it to the SAP BusinessObjects Business Intelligence Platform.

Lesson: Exporting a report

Lesson Objectives

After completing this lesson, the participant will be able to:

- Get to know the exporting formats, options and destinations for a report

Lesson: Saving to SAP BusinessObjects Business Intelligence Platform

Lesson Objectives

After completing this lesson, the participant will be able to:

- Define viewing requirements in SAP BusinessObjects Business Intelligence Platform
- Save a report to an SAP BusinessObjects Enterprise Folder

© SAP AG. All rights reserved.