



Oracle Reports Developer 10g : Build Reports Course 36 Contact Hours

What you will learn

In this course, students learn how to design and build a variety of standard and custom Web and paper reports using Oracle Reports Developer. Working in the declarative environment of Reports Builder, students learn how to retrieve, display, and format data from any data source in numerous reporting styles and publish the output to any destination.

During the course, students learn how to add dynamic content to a static Web page and publish reports to the Web. Students also learn how to customize more complex reports, embed graphical charts, and use OracleAS Reports Services to deploy your reports.

Audience

Database Administrators, Technical Consultant, Reports Developer

Prerequisites

XML: Introduction or equivalent familiarity with basic XML

Course Objectives

- Create reports by accessing data from various data sources
- Add dynamic data to an existing HTML page
- Use report parameters and customize a runtime parameter form
- Enhance reports using graphs and PL/SQL trigger code
- Maximize report performance using OracleAS Reports Services and tune reports
- Publish a report on the Web and build reports to run in various languages
- Manage report templates, create mailing labels and letters
- Identify the main components in a report document and how they are related
- Identify the differences between Web and paper reports
- Identify standard report design styles and run existing reports to various output destinations
- Create and modify basic tabular reports and high quality Web reports
- Create other report styles such as break reports and matrix reports

Course Outline

- Introduction to Oracle Reports Developer
- Business Intelligence
- Enterprise Reporting
- Oracle Reports Developer
- Oracle Database 10g
- Oracle Developer Suite 10g
- Oracle Application Server 10g



OracleAS Reports Services OracleAS Reports Services Architecture for the Web

Designing and Running Reports
Understanding User Requirements
Designing Reports
Tabular
Master-Detail
Master with Two Details
Matrix
Retrieving and Sharing Data
Running a Report

Working in Oracle Reports Developer
Reports Developer Executables
Invoking Reports Builder
Reports Builder Modules
Report Data and Layout
Reports Builder Components
Object Navigator
Report-Level Objects
Data Model Objects

Creating a Paper Report
Report Module Components
Building a Paper Report
Viewing the Paper Report Output
Saving the Report Definition
Reentering the Wizard
Creating Break Reports
Break Report Labels
Creating Mailing Labels and Letters

Enhancing a Basic Paper Report
What Is the Paper Design?
The Paper Design Window
Modifying a Report
Aligning Columns
Setting a Format Mask
Manipulating Objects
Modifying Visual Attributes
Applying Conditional Formatting



Managing Report Templates
Using Report Templates
Modifying a Template
Customizing the Template Margin
Customizing the Template Body
Adding Web Links to a Template for Report HTML Output
Predefining Your Own Templates
Adding a Template Preview Image

Creating a Web Report
What Is JSP Technology?
JSP Advantages
Simple JSP Example
Building a Web Report
Using the Report Wizard
Report Editor: Web Source View
JSP Tags
Web Source Example

Enhancing Reports Using the Data Model: Queries and Groups
The Data Model Objects
Modifying Properties of a Query
Applying Changes
Changing the Group Structure
Group Hierarchy
Ordering Data in a Group
Query Modifications
Filtering Data in a Group

Enhancing Reports Using the Data Model: Data Sources
Data Source Types
Pluggable Data Sources
Using XML as a Data Source
Document Type Definition File
OLAP Data Source
Using Text as a Data Source
Using JDBC as a Data Source
Using REF Cursor Queries

Enhancing Reports Using the Data Model: Creating Columns
Data Model Columns
Maintaining Data Source Columns



Producing File Content Output
Creating a Column
Creating Summary Columns
Displaying Subtotals
Displaying Percentages
Creating a Formula Column

Enhancing Reports Using the Paper Layout
Viewing the Paper Layout
Designing Multipanel Reports
Printing Multipanel Reports
Different Objects in the Paper Layout
The Paper Layout Layers
Report Processing
Paper Layout Tools
Report Bursting

Controlling the Paper Layout: Common Properties
Modifying Paper Layout Object Properties
Common Layout Properties
Sizing Objects
Anchors
Layout Object Relationships
Pagination Icons in the Paper Layout
Controlling Print Frequency
Using Format Triggers

Controlling the Paper Layout: Specific Properties
Properties of a Repeating Frame
Specifying Print Direction
Controlling the Number of Records per Page
Controlling Spacing Between Records
Minimum Widow Records
System Variables
Valid Source Columns
Displaying File Contents

Web Reporting
Comparing Static and Dynamic Reporting
Adding Dynamic Content
Creating a Report Block
Invoking the Report Block Wizard



Examining the Web Source Code

rw:foreach Tag

rw:field Tag

Customizing Reports JSPs

Extending Functionality Using XML

Why Use XML Report Definitions?

Creating XML Report Definitions

Partial Report Definitions: Format Modification Example

Partial Report Definitions: Format Exception Example

Full Report Definition: Data Model Modification Example

Running XML Report Definitions

Debugging XML Report Definitions

Creating and Using Report Parameters

Creating User Parameters

Referencing Parameters in a Report Query

Using Bind References

Using Lexical References

Hints and Tips When Referencing Parameters

Creating a List of Values

Referencing System Parameters

Building a Paper Parameter Form

Embedding a Graph in a Report

Adding a Graph to a Paper Report

Adding a Graph to a Web Report

Selecting the Graph Type

Selecting the Graph Data

Adding Options to the Graph

Customizing Web Graphs

The rw:graph Tag

Customizing Graphs Using the Graph.XML File

Enhancing Matrix Reports

The Matrix Data Model

The Matrix Paper Layout

Creating Matrix Summaries

Creating the Matrix Manually

The Matrix with Group Data Model

The Matrix with Group Layout

Building a Nested Matrix



Nested Matrix Paper Layout

Coding PL/SQL Triggers

Types of Triggers in Reports

Trigger Code

Using Report Triggers

Using Data Model Triggers: PL/SQL Group Filter

Using Data Model Triggers: Parameter Validation

Using Layout Triggers

Using Format Triggers

Event-Based Reporting

Extending Functionality Using the SRW Package

Contents of the SRW Package

Outputting Messages

Executing a Nested Report

Restricting Data

Initializing Fields

Creating a Table of Contents

Performing DDL Statements

Setting Format Attributes

Maximizing Performance Using OracleAS Reports Services

Running Reports Using OracleAS Reports Services

Report Request Methods

Oracle Application Server Components

Enabling Single Sign-On Access

Running the Web Layout: JSP Run-time Architecture

Running the Paper Layout: Servlet Run-time Architecture

Running a Paper Report on the Web

Queue Manager

Building Reports: Efficiency Guidelines

Tuning Reports

Performance Measurement

Non SQL Data Sources

Investigating the Data Model

Investigating the Paper Layout

Running the Report

Different Development and Run-Time Environments

Developing Reports to Run in Different GUIs