

Oracle Reports Developer 10g: Build Reports

Duration : 40 hrs

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:

- Business Intelligence Developer
- Technical Consultant
- Reports Developer

Prerequisites:

Required Prerequisites:

- Oracle Database 10g: SQL Fundamentals I
- Oracle Database 10g: PL/SQL Fundamentals
- Oracle Database 10g: Develop PL/SQL Program Units

Suggested Prerequisites:

- XML: Introduction or equivalent familiarity with basic XML
- Oracle Database 10g: SQL Fundamentals II

Course Objectives:

- 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
 - Create reports by accessing data from various data sources
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Course Topics:

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
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- 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
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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
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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