

**Course Description:** Students learn how to design reports and how to retrieve, display, and format data in numerous reporting styles and publish the output. Students also learn how to add dynamic content to a static Web page, publish reports to the Web, customize complex reports, embed charts, and use OracleAS Reports Services to deploy reports.

**Who Should Attend:** This course is for Technical Consultants, Reports Developers, and Business Intelligence Developers.

**Prerequisites:** Students should have taken XML: Introduction or have equivalent familiarity with basic XML.

**Benefits of Attendance:** Upon completion of this course, students will be able to:

- Add dynamic data to an existing HTML page
- Use report parameters and customize a runtime parameter form
- Enhance reports and maximize report performance
- Publish a report on the Web and build reports to run in various languages
- Manage report templates
- Identify main components in a report document
- Identify the differences between Web and paper reports
- Identify report design styles and run existing reports to various output destinations
- Create basic tabular reports and high quality Web reports
- Create other report styles
- Create reports by accessing data from various data sources

### Course Outline:

#### Introduction

Business Intelligence  
Enterprise Reporting  
Oracle Reports Developer  
Oracle Database 10g  
Oracle Developer Suite 10g  
OracleAS 10g  
OracleAS Reports Services

#### Designing and Running Reports

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

Report Module Components  
Building a Paper Report and Viewing Output  
Saving the Report Definition  
Reentering the Wizard  
Creating Break Reports  
Break Report Labels  
Creating Mailing Labels and Letters  
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  
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  
Building a Web Report  
Using the Report Wizard  
Report Editor: Web Source View  
JSP Tags

#### 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 Source Types  
Pluggable Data Sources  
Using XML as a Data Source  
Document Type Definition File  
OLAP Data Source  
Using Text and 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 and Printing Multipanel Reports  
Different Objects in the Paper Layout  
The Paper Layout Layers  
Report Processing  
Paper Layout Tools  
Report Bursting

#### Controlling the Paper Layout

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 and 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 and rw.field  
Customizing Reports JSPs

#### Extending Functionality Using XML

Creating XML Report Definitions  
Running and 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 Report  
Selecting the Graph Type and Data  
Adding Options  
Customizing Web Graphs  
The rw:graph Tag  
Customizing Graphs

#### 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  
Nested Matrix

#### PL/SQL Triggers

Types of Triggers in Reports  
Trigger Code  
Using Report Triggers  
Using Data Model Triggers  
Using Triggers  
Event-Based Reporting

#### 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

Running Reports Using OracleAS Reports Services  
Report Request Methods  
Oracle Application Server Components  
Enabling Single Sign-On Access  
Running the Layouts  
Running a Paper Report on the Web Queue Manager

#### Building Reports

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