Oracle Data Integrator 11g: Integration and Administration

Duration: 5 Days

What you will learn

Oracle Data Integrator is a comprehensive data integration platform that covers all data integration requirements from high-volume, high-performance batch loads, to event-driven integration processes and SOA-enabled data services. Oracle Data Integrator's Extract, Load, Transform (E-LT) architecture leverages disparate RDBMS engines to process and transform the data - the approach that optimizes performance, scalability and lowers overall solution costs.

This offering details on how to use Oracle Data Integrator (ODI) to implement high-performance movement and transformation of data among various platforms. It also deals with usage of ODI graphical user interfaces that enable user to access different ODI components and resources that form ODI infrastructure.
Using the graphical interfaces, you create and manage ODI repositories, which store configuration information about the IT infrastructure, the metadata for all applications, projects, models and other ODI artifacts. You also learn how to create the ODI Topology, organize ODI models and design ODI interfaces, procedures, packages and other objects.

Learn To:
Use Oracle Data Integrator to perform transformation of data among various platforms
Design ODI Interfaces, Procedures, and Packages to perform ELT data transformations
Administer ODI resources and set up security with ODI
Learn to perform data integration and transformation among various platforms.
Learn to use the ODI graphical interface to define procedures, packages, and ELT jobs.
Learn to set up and maintain a secure, multi-user ODI environment.
Implement Changed Data Capture with ODI
Use ODI Web services and perform integration of ODI with SOA

Benefits to You
Improve performance and reduce integration costs across your organization's heterogeneous systems. Centralize data across databases using your new skills to perform data integration, design ODI interfaces, and setup ODI security.

This course is based on Oracle Data Integrator 11g(11.1.1.6)

Audience

Business Analysts
Data Modelers
Data Warehouse Administrator
Database Administrators
SOA Architect
Technical Consultant

Related Training

Required Prerequisites

Basic knowledge of ELT data processing

Suggested Prerequisites
Working knowledge of SQL

Course Objectives

Describe ODI Model concepts

Describe architecture of Oracle Data Integrator 11g

Apply ODI Topology concepts for data integration

Design ODI Interfaces, Procedures, Packages, and Load Plans to perform ELT data transformations

Explore, audit data, and enforce data quality with ODI

Administer ODI resources and setup security with ODI

Implement Changed Data Capture with ODI

Use ODI Web services and perform integration of ODI with SOA

Course Topics

Introduction
Identifying the Course Units
What is Oracle Data Integrator?
Why Oracle Data Integrator?
Overview of ODI 11g Architecture
Overview of ODI 11g Components
About Graphical Modules
Types of ODI Agents
Overview of Oracle Data Integrator Repositories

Administering ODI Repositories and Agents
Administrating the ODI Repositories
Creating Repository Storage Spaces
Creating and Connecting to the Master Repository
Creating and Connecting to the Work Repository
Managing ODI Agents
Creating a Physical Agent
Launching a Listener, Scheduler and Web Agent
Example of Load Balancing

ODI Topology Concepts
Overview of ODI Topology
About Data Servers and Physical Schemas
Defining the Physical Architecture

Defining the Logical Architecture
Mapping Logical and Physical Resources
Defining Agents
Defining a Topology
Planning the Topology

Describing the Physical and Logical Architecture
Overview of Topology Navigator
Creating Physical Architecture
Creating a Data Server
Testing a Data Server Connection
Creating a Physical Schema
Creating Logical Architecture
Overview of Logical Architecture and Context Views
Linking the Logical and Physical Architecture

Setting Up a New ODI Project
Overview of ODI Projects
Creating a New Project
Using Folders
Organizing Projects and Folders
Understanding Knowledge Modules
Exchanging ODI Objects and Sharing Global Objects
Exporting and Importing Objects
Using Markers

Oracle Data Integrator Model Concepts
What is a Model?
Understanding Metadata in ODI
Understanding Reverse Engineering
Creating Models
Organizing Models
Creating Data stores
Using Constraints in ODI
Creating Keys and References

Organizing ODI Models and Creating Data stores
What is an Interface?
Business Rules for Interfaces
What is a Mapping?
What is a Join?
What is a Filter?
What is a Constraint?
What is a Staging Area?
Creating a Basic Interface

ODI Interface Concepts
What is an Interface?
Business Rules for Interfaces
What is a Mapping, Filter, Join?
Overview of Integration Process
What is a Staging Area?

About Execution Location
Using Knowledge Modules (KM) with ODI Interface
Creating a Basic Interface

Designing Interfaces
Designing an Interface
Multiple Source Data stores
Creating Joins
Filtering data
Disabling Transformations
Overview of the Flow
Specifying the Staging Area
Selecting Knowledge Modules

Interfaces: Monitoring and Debugging
Monitoring Interfaces
Using Operator
Viewing Sessions and Tasks
How to Monitor Execution of an Interface
How to Troubleshoot a Session
Keys to Reviewing the Generated Code
Working with Errors
Tips for Preventing Errors

Designing Interfaces: Advanced Topics
Using Business Rules in Interfaces
Overview of Business Rule Elements
Using and Tracking Variables
Using User Functions
Using Substitution Methods
Modifying a KM
Showing Variable Values in Log
Using RKM for Customized Reverse Engineering

Using ODI procedures
What is a Procedure?
Examples of Procedures
Creating Procedures
Adding Commands
Adding Options
Running a Procedure
Using Operator to View Results

Using ODI Packages
What is a package?
Creating a package
Executing a package
Creating Advanced Packages
Error handling
Controlling an Execution Path
Creating a Loop
Using the Advanced tab

Managing ODI Scenarios and Versions
What is a Scenario?
Managing Scenarios with Load Plans
Preparing Scenarios for Deployment
Automating Scenario Management
Scheduling the ODI Scenario
Overview of ODI version management
Using Version Browser and Version Comparison Tool
Handling concurrent changes

Enforcing Data Quality and Auditing Data with ODI
Why Data Quality?
When to Enforce Data Quality?
Data Quality in Source Applications
Data Quality Control in the Integration Process
Data Quality in the Target Applications
Enforcing Data Quality
Exploring Your Data
Auditing Data Quality

Working with Changed Data Capture
Overview of ODI version management
Techniques of Changed Data Capture
Changed Data Capture in ODI
CDC Strategies and Infrastructure
CDC Consistency
Using CDC
Viewing Data/Changed data
Using Journalizing

Administering ODI Resources: Advanced Topics
Using Open Tools
Installing Open Tools
Using Open Tools in a Package
Using Open Tools in a Procedure or in a KM
Developing Your Own Open Tools
Setting Up ODI Security
Defining Security Policies
Defining Password Policies

Using Web Services and Integration of Oracle Data Integrator with SOA
Web Services in Action
Using Data Services
Setting Up Data Services
Testing Data Services
Installing Public Web Services
Using Public Web Services
Invoking Web Services
Integrating ODI with SOA

Extending ODI with the SDK
Using SDK Public Interfaces