
Oracle Data Integrator 12c: 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.

Learn To:

Use Oracle Data Integrator to perform transformation of data among various platforms.

Design ODI Mappings, Procedures, and Packages to perform ELT data transformations.

Administer ODI resources and set up security with ODI.

Perform data integration and transformation among various platforms.

Use the ODI graphical interface to define procedures, packages, and ELT jobs.

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

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 Mappings, and set up ODI security.

Implement High-Performance Movement and Transformation

This offering details on how to use Oracle Data Integrator (ODI) 12c to implement high-performance movement and transformation of data among various platforms.

ODI Graphical User Interface

The training covers usage of ODI graphical user interfaces that enable users to access different ODI components and resources that form ODI infrastructure.

ODI Repositories

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.

ODI Topology, Models, Mappings, and other

You also learn how to create the ODI Topology, organize ODI models and design ODI Mappings, procedures, packages and other objects.

This course is based on Oracle Data Integrator 12c (12.1.2)

Audience

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

Course Topics

Introduction

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

Administering ODI Repositories and Agents

- Administering 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
- Creating and Maintaining Folders
- Organizing Projects and Folders

Understanding Knowledge Modules
Exchanging ODI Objects and Sharing Global Objects
Exporting and Importing Objects
Creating and Labeling with Markers

Oracle Data Integrator Model Concepts

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

Organizing ODI Models and Creating Data stores

What is a Mapping?
Business Rules for Mappings
Creating a Basic Mapping
What is a Join?
What is a Filter?
What is a Constraint?
What is a Staging Area?

ODI Mapping Concepts

What is a Mapping?
Business Rules for Mapping
What is a Mapping, a Filter, a Join?
Overview of Integration Process
What is a Staging Area?
Execution Location
Mapping with Knowledge Modules (KM)
Creating an Intermediate Mapping

Designing Mappings

Designing a Mapping
Multiple Source Data stores
Creating Joins
Filtering Data
Disabling Transformations
Overview of the Flow
Specifying the Staging Area
Selecting Knowledge Modules

Mapping: Monitoring and Debugging

Monitoring Mappings
Creating Objects with Operator
Viewing Sessions and Tasks
How to Monitor Execution of a Mapping

- How to Troubleshoot a Session
- Keys to Reviewing the Generated Code
- Working with Errors
- Tips for Preventing Errors

Designing Mappings: Advanced Topics

- Mapping with Business Rules
- Overview of Business Rule Elements
- Creating and Tracking Variables
- Creating User Functions
- Mapping Substitution Methods
- Modifying a KM
- Showing Variable Values in Log
- Customizing Reverse Engineering Using RKM

Creating and Running ODI procedures

- What is a Procedure?
- Examples of Procedures
- Creating Procedures
- Adding Commands
- Adding Options
- Running a Procedure
- Viewing Results with Operator

Creating and Running 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
- 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
- Creating Change Data Capture (CDC)
- Viewing Data/Changed data
- 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

Creating Web Services and Integration of ODI 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

- Coding SDK Public Interfaces
- Integrating through ODI SDK
- Examining SDK examples