

Data Integration and ETL with Oracle Warehouse Builder

CODICE

D70623GC20

DURATA

5 Giorni

PREZZO

2.500,00€ (iva escl.)

LINGUA

Italiano

MODALITÀ

Virtual Classroom
Corso in aula

SCHEDULAZIONE

- A Richiesta

PREREQUISITI

Experience in basic use of Oracle RDBMS, including SQL DDL and DML, and PL/SQL;

Prerequisiti suggeriti :

Oracle BI Warehouse Builder 11g R2: Getting Started (OBE)

Introduction to Business Intelligence Products (eStudy)


Oracle Database 11g: Data Warehousing Fundamentals

Audience:

Amministratore di datawarehouse

Analista di datawarehouse

OBIETTIVI

A close-up photograph of a person's hands holding a tablet computer. The person is wearing a light blue long-sleeved shirt. The background is blurred, showing what appears to be an office or training environment with large windows.

Backup the OWB Projects using the MDL Export/Import and create snapshots to manage metadata changes
Load tables and view the resulting data
Use the Mapping Debugger to debug mappings
Apply performance enhancement methods in the mappings
Report on the ETL Jobs using the Repository Browser
Describe the OBI EE integration
Use OWB to define, deploy, and execute basic source to relational target ETL programs
Describe the Name and Address cleansing and Match-merging
Define metadata representing flat file and relational sources, and relational table targets
Create simple mappings from flat file and relational sources to relational targets
Explain the use of different Mapping Editor operators
Define a process flow for a set of simple mappings
Use OWB tools to deploy tables, mappings, and related objects

CONTENUTI

Installing and Setting Up the Warehouse Builder Environment
What Is Oracle Warehouse Builder?
Basic Process Flow of Design and Deployment
Oracle Warehouse Builder Licensing and Connectivity Options
Installing Oracle Warehouse Builder 11.2
OWBSYS Schema
Using OWB 11.2 with Database 10g R2
Using the Repository Assistant to Manage Workspaces
Supported operating systems (OS), sources, targets, and optional components
Getting Started with Warehouse Builder
Logging In to OWB Design Center
Overview of the Design Center
OWB Projects
Overview of Objects within a Project
Overview of Objects within an Oracle Module
Organizing Metadata Using Foldering
Locations Navigator and Global Navigator panels
Setting Projects Preferences: Recent Logons
Understanding the Warehouse Builder Architecture
Warehouse Builder Development Cycle
Overview of the Architecture for Design, Deployment, Execution
Overview of Configurations, Control Centers, and Locations
Creating Target Schemas
Registering DB User as an OWB User
Roles and Privileges of Warehouse Builder Users
Registering an Oracle Workflow User
Defining Source Metadata

Data warehouse implementation: Typical steps

Difference Between Obtaining Relational and Flat File Source Metadata

Creating Flat File Module

Sampling Simple Delimited File

Sampling Multi-record Flat File

Creating an Oracle Module

Selecting the Tables for Import

Defining ETL Mappings for Staging Data

Purpose of a Staging Area

Define OWB Mappings

Mapping Editor Interface: Grouping, Ungrouping, and Spotlighting

Creating External Tables

Create and Bind process

Levels of Synchronizing Changes

Using the Automapper in the Mapping Editor

Set loading type and target load ordering

Using the Data Transformation Operators

Component Palette

Using a Joiner

Lookup Operator: Handling Multiple Match Rows

Using the Subquery Filter Operator

Using the Set, Sequence, and Splitter Operators

Pivot and Unpivot Operators

Using the Aggregator, Constant, Transformation, and Pre/Post Mapping Operators

Deploying and Executing in Projects Navigator Panel

Cleansing and Match-Merging Name and Address Data

Integrating Data Quality into ETL

Name and Address Data Cleansing

Name and Address Server

Name and Address Software Providers

Settings in the Name and Address Operator

Reviewing a Name and Address Mapping

Consolidating Data Using the Match Merge Operator

Using the Match Merge Operator in a Mapping

Using Process Flows

Process Flow Concepts

Creating a Process Flow Module, a Process Flow Package and a Process Flow

Types of Activities: Fork, And, Mapping, End Activity

Creating Transitions Between Activities

Some More Activities: Manual, SQLPLUS, Email

Generating the Process Flow Package

Deploying and Reporting on ETL Jobs

Logical Versus Physical Implementation
Setting Object Configuration
Deployment Concepts
Invoking the Control Center Manager
Deploy Options and Preferences
Repository Browser
Starting OWB Browser Listener and the Repository Browser
Browsing Design Center and Control Center Reports
Using the Mapping Debugger
Overview of the Mapping Debugger
Initializing a Mapping Debugging Session
Preparing the testing environment and test data
Setting breakpoints and watch points
Evaluating the flow of data to detect mapping errors
Enhancing ETL Performance
Performance Tuning at Various Levels
Performance-Related Parameters in ETL Design
Configuring Mappings for Operating Modes, DML Error Logging, Commit Control, and Default Audit Levels
Enabling Partition Exchange Loading (PEL) for Targets
Performance-Related Parameters in Schema Design
Configuring Indexes, Partitions, Constraints
Enabling Parallelism and Parallel DML
Setting Tablespace Properties and Gathering Schema Statistics
Managing Backups, Development Changes, and Security
Overview of Metadata Loader Utilities (MDL)
Managing Metadata Changes by Using Snapshots
Using Change Manager
Version Management of Design Objects
Graphical UI for Security Management
Object-Level Security
Setting Security Parameters
Integrating with Oracle Business Intelligence Enterprise Edition (OBI EE)
Business Justification: Tools Integration
Integrating with OBI EE and OBI SE
Transferring BI Metadata to OBI EE Server
Setting Up the UDML File Location
Deriving the BI Metadata (OBI EE)
Deploying the BI Module
Converting the UDML File for OBI EE
Oracle BI Admin and Answers Tool
Administrative Tasks in Warehouse Builder
Enterprise ETL License Extends Core In-Database ETL

Multiple Named Configurations: Why and How

Using Multiple Named Configurations

Using Configuration Templates

Steps for Setting Up OWB in a RAC Environment

Creating an OWB Schedule

Managing Metadata

Using Lineage and Impact Analysis Diagrams

Invoking Lineage and Impact Analysis

Using the Change Propagation Dialog

User-Defined Properties, Icons, and Objects

Using Pluggable Mappings

Advanced Activity Types in Process Flows

Native Relational Object Support

Heterogeneous Predefined SQL Transformations

Accessing Non-Oracle Sources

Extensible Framework of OWB 11g Release 2

Benefits of Extensible Code Templates

Location of Seeded Code Templates

Creating New Code Templates

Defining New Integration Platforms in OWB

Designing Mappings with the Oracle Data Integration Enterprise Edition License

Traditional Versus Code Template (CT) Mappings

Execution Units in a CT Mapping

Execution View Versus Logical View

Assigning a Code Template to an Execution Unit

Convert a Classic Mapping to a CT Mapping That Utilizes Data Pump

CT Mappings Deploy to Control Center Agents

Right-Time Data Warehousing with OWB

What Is Meant by Real-Time Data Warehousing

What Refresh Frequency Does OWB Support

Building a Trickle Feed Mapping

Using Advanced Queues in Trickle Feed Mappings

Using CDC Code Templates in Mappings for Change Data Capture

Starting CDC Capture Process

Defining Relational Models

Defining Dimensions Using Wizards and Editors

Defining Dimension Attributes, Levels, and Hierarchies

Binding Dimension Attributes to the Implementation Table

Using the Create Time Dimension Wizard

Defining a Cube

Specifying a Cube's Attributes and Measures

Designing Mappings Using Relational Dimensions and Cubes



More Relational Dimensional Modeling
 Initial Versus Incremental Data Warehouse Loads
 Updating Data and Metadata
 Capturing Changed Data for Refresh
 Setting Loading Properties
 Choosing the DML Load Type
 How OWB Manages Orphans
 Support for Cube-Organized Materialized Views
 Creating a Type 2 Slowly Changing Dimension
 Modeling Multidimensional OLAP Dimensions and Cubes
 What Is OLAP
 Multidimensional Data Types
 Analytic Workspace
 Dimensional Modeling Using OWB
 OWB Calculated Measures
 OWB Calculated Measure

Description:

Participants learn to load data by executing the mappings or the process flows, use Oracle Warehouse Builder 11g, Release 2 features to manage metadata changes, debug mappings, backup metadata, manage security, and tune the ETL mappings for better performance. Integration of Warehouse Builder with OBI EE, along with the Warehouse Builder architecture and configuration are discussed.

Participants learn to retrieve data from different types of sources such as flat files or relational schemas and also to use the different transformation operators to design an ETL task. The usage of Warehouse Builder to define both relational dimensional models and multidimensional models, to deploy a single logical model to multiple physical targets and how to handle slowly changing dimensions are also covered.

In addition, extraction of data from non-Oracle sources using code templates, usage of the Warehouse Builder ETL and data integration features of the Enterprise ETL Option of the Oracle database are discussed.

This functionality requires the Oracle Warehouse Builder Enterprise ETL/ODI EE option.

This course is a combination of Data Integration and ETL with Oracle Warehouse Builder: Part 1 and Data Integration and ETL with Oracle Warehouse Builder: Part 2 courses.

Learn To: Retrieve data from different types of sources such as flat files or relational schemas

Use the different transformation operators to design an ETL task

Load data by executing the mappings or the process flows

Use OWB features to manage metadata changes, debug mappings, backup metadata, manage security, and tune the ETL mappings for better performance

Integrate Warehouse Builder with OBI EE Warehouse

Explain the Warehouse Builder architecture and configuration

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