Oracle GoldenGate 12c: Fundamentals for Oracle

Duration: 4 Days

What you will learn

This Oracle GoldenGate 12c: Fundamentals for Oracle training focuses on Oracle-to-Oracle database replication. Expert Oracle University instructors will deep dive into the Oracle GoldenGate architecture, walking you through various product features.

Learn To:

Install Oracle GoldenGate on Linux and Windows platforms.
Issue GGSCI commands.
Configure, start, stop and monitor Change Capture and Delivery processes.
Manage Extract trails and files using Data Pump and logdump.
Create parameter files to transform data.
Manage multiple Oracle GoldenGate instances.

Benefits to You

Integrate your organization's disparate data across heterogeneous databases for improved decision-making. Become more efficient at configuring and implementing Oracle GoldenGate.

Install GoldenGate Installation & Command Line

You'll learn to install Oracle GoldenGate and prepare the source and target environments. Enrolling in this course teaches you how to use the Oracle GoldenGate command line interface (GGSCI) efficiently.

Learn GoldenGate Configuration Processes

You'll also develop the knowledge and skills to configure Change Capture (Extract), Change Delivery (Replicat) and Initial Load. You'll learn how to extract trails and files using Data Pump, create parameter files and manage Oracle GoldenGate instances.

Uni- and Bi-Directional Replication

Capture of both DML and DDL will be configured for both uni- and bi-directional replication with collision detection.

Explore New Features in 12c

Features new to 12c, such as Integrated Apply and Wallet, are highlighted along the way. This course is based on Oracle GoldenGate version 12.1.2. Please note that the labs are done in Linux.

Audience
Configuration Consultant
Data Warehouse Administrator

Data Warehouse Analyst
Data Warehouse Developer
Database Administrators
Database Designers
System Integrator
Technical Consultant

Course Objectives
Design replication solutions using Oracle GoldenGate products and environments

Install Oracle GoldenGate and prepare the source and target database (assumes Oracle-to-Oracle replication)

Issue GGSCI commands (batch Obey scripts and command-line interactive)

Configure, start, stop, and monitor Change Capture (Extract), Change Delivery (Replicat), and Initial Load

Manage Extract trails and files using Data Pump and utilities such as logdump

Control network transmission using compression and encryption

Transform data

Course Topics

Technology Overview
Creating Oracle GoldenGate Topologies
Reviewing Oracle GoldenGate Use Cases
Assembling Building Blocks
Listing Supported OS
Listing Supported Databases
Listing the Oracle GoldengGate Product Line
Describing GUI Management Options
Listing Non-Database Sources and Targets

Oracle GoldenGate Architecture
Describing Oracle GoldenGate Process Groups
Explaining Change Capture and Delivery (with and without a Data Pump)

Explaining Initial Data Load
Contrasting Batch and Online Operation
Explaining Oracle GoldenGate Checkpointing
Describing Commit Sequence Numbers (CSN)
Describing Oracle GoldenGate Files and Directories

Installing Oracle GoldenGate
Listing System Requirements
Performing Installation
Configuring Environment Variables
Using GGSCI
Running Oracle GoldenGate from the OS shell.

Configuration Overview and Preparing the Environment
Reviewing Configuration Overview
Configuring Manager Process
Creating Source Definitions
Preparing the Source Database
Assigning Oracle Database Roles/Privileges Required
Using DBMS_GOLDENGATE_AUTH Package

Configuring Change Capture (Extract)
Reviewing Extract Overview
Accessing Logs on Oracle ASM
Accessing Logs Remotely
Configuring Extract Tasks
Adding Extract Group
Editing Extract Parameters
Extracting Use of Archived Transaction Logs
Adding Trails

Configuring Change Delivery (Replicat)
Reviewing Replicat Overview
Configuring Replicat Tasks
Configuring a Sample Environment
Configuring New Integrated Replicat

Configuring Extract Trails and Files (Data Pump)
Reviewing Extract Trails and Files Overview
Describing Trail Formats
Using Logdump for Viewing Trails
Reversing the Trail Sequence
Configuring and Using Data Pumps

Performing Initial Load
Oracle GoldenGate Methods
Listing Database-specific Methods
Describing Resource Limitations
Listing Advantages of Oracle GoldenGate Methods
Configuring File Load Methods
Configuring Direct Load Methods
Handling Collisions with Initial Load

Editing Configuration Parameters
Editing Parameter Files
Contrasting GLOBALS versus Process Parameters
Configuring GLOBALS Parameters
Configuring Manager Parameters
Configuring Extract Parameters
Configuring Replicat Parameters

Filtering and Data Selection
Filtering and Data Selection
Mapping Columns Between Different Schemas
Using Built-in "@" (at) Functions
Using SQLEXEC to Interact Directly with a Database
Configuring New Coordinated Replicat

Additional Transformation Concepts
Configuring and Using Macros
Configuring and Using User Tokens
Configuring and Using User Exits
Configuring and Using Oracle Sequences

Configuration Options
Configuring and Using BATCHSQL
Configuring and Using Compression
Configuring and Using Encryption
Configuring and Using Event Actions
Configuring New Wallet Security

Bidirectional Replication
Reviewing Bidirectional Considerations
Detecting Loops
Avoiding Conflicts
Configuring and Using Conflict Detection and Resolution
Describing Identity Types Issues

DDL Replication
Reviewing Data Description Language Replication Overview
Configuring and Using Options for DDL Replication
Configuring and Using String Substitution in DDL