Oracle Golden Gate 12c: Fundamentals for Oracle

Duration: 4 Days

What you will learn

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

Learn To:

- ➢ Install Oracle Golden Gate 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 log dump.
- ➢ Create parameter files to transform data.
- ➢ Manage multiple Oracle Golden Gate 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 Golden Gate.

Install Golden Gate Installation & Command Line
You'll learn to install Oracle Golden Gate and prepare the source and target environments. Enrolling in this course teaches you how to use the Oracle Golden Gate command line interface (GGSCI) efficiently.

Learn Golden Gate 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 Golden Gate 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 Golden Gate 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

Related Training

Required Prerequisites

- ➢ Familiarity with Oracle Database and basic SQL using SQL*Plus ➢ Familiarity with editing Linux text files using gedit or vi

Suggested Prerequisites

- ➢ Familiarity with basic encryption techniques

Course Objectives

- ➢ Design replication solutions using Oracle Golden Gate products and environments
- ➢ Install Oracle Golden Gate 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 log dump
- ➢ Control network transmission using compression and encryption ➢ Transform data

Course Topics

Technology Overview

- ➢ Creating Oracle Golden Gate Topologies
- ➢ Reviewing Oracle Golden Gate Use Cases
- ➢ Assembling Building Blocks
- ➢ Listing Supported OS
- ➢ Listing Supported Databases
- ➢ Listing the Oracle Golden Gate Product Line
- ➢ Describing GUI Management Options
- ➢ Listing Non-Database Sources and Targets

Oracle Golden Gate Architecture

- ➢ Describing Oracle Golden Gate Process Groups
- ➢ Explaining Change Capture and Delivery (with and without a Data Pump)
- ➢ Explaining Initial Data Load
- ➢ Contrasting Batch and Online Operation
- ➢ Explaining Oracle Golden Gate Check pointing
- ➢ Describing Commit Sequence Numbers (CSN)
  Describing Oracle Golden Gate Files and Directories

Installing Oracle Golden Gate

- ➢ Listing System Requirements
- ➢ Performing Installation
- ➢ Configuring Environment Variables
- ➢ Using GGSCI
- ➢ Running Oracle Golden Gate 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 Log dump for Viewing Trails
- ➢ Reversing the Trail Sequence
- ➢ Configuring and Using Data Pumps

Performing Initial Load

- ➢ Oracle Golden Gate Methods
- ➢ Listing Database-specific Methods
- ➢ Describing Resource Limitations
  Listing Advantages of Oracle Golden Gate 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