

## 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

## 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 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 GoldenGate 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