



## Oracle19c/21c/23ai Goldengate Training

### Hands-on Training on Oracle19c/21c/23ai Goldengate

#### Course Objectives

Learn All topics with Real Time Use Cases with Practical's Hands on from Industry Expert and dive deeper into Oracle Goldengate both on Premises and Cloud Infrastructure and Use Goldengate for High Availability, DR Requirements, Database Migrations,... etc

Learn Oracle Veridata to identify data mismatches between source and target and learn to the way to fix them.

Learn Oracle GoldenGate for Heterogeneous Databases Setup Like Oracle To PostgreSQL/MySQL

Design secure golden-gate standard and Micro Services with disaster recovery options, explore advanced goldengate Set up Non RAC, RAC, On OCI and migrate database from on-premises workloads to OCI and implement a secure and scalable cloud solution that meets HA and DR requirements.

This course helps you gain strong knowledge in Oracle Goldengate Stand Micro services and Help to attend Oracle Goldengate Certification Exams.

**For Any Clarification please feel free to contact @ +91 8655015955 (Kanchan) / +91 9867328291 (Ambasa)**

**Duration: 40Hrs.**

#### **Course Topics**

##### **Oracle GoldenGate Standard and MicroServices 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 Standard and MicroServices**

Listing System Requirements

Performing Installation

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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 Goldengate Standard and MicroServices**

### **Configuring Change Capture (Extract)**

Reviewing Extract Overview Accessing Logs on Oracle ASM  
Accessing Logs Remotely Configuring Extract Tasks  
Adding Extract Group  
Editing Extract Parameters and Adding Trails

### **Configuring Change Delivery (Replicat)**

Reviewing Replicat Overview  
Configuring Replicat Tasks  
Configuring a Sample Environment

### **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

## **Configuring Service Manager, Administration Server, Distribution Server, Metric Server, Receiver Server**

### **Performing Initial Load Using Many Methods**

Oracle GoldenGate Methods  
Listing Database-specific Methods Describing Resource Limitations  
Listing Advantages of Oracle GoldenGate Methods



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Configuring File Load Methods  
Configuring Direct Load Method  
Handling Collisions with Initial load  
Initial Load using Export / Import  
Initial Load using RMAN

## **Editing Configuration Parameters**

Editing Parameter Files  
Configuring GLOBALS Parameters  
Configuring Manager Parameters  
Configuring Extract Parameters  
Configuring Replicat Parameters

## **Oracle GoldenGate Integrated Capture/integrated Delivery**

What is Oracle GoldenGate Integrated Capture?  
Why it is Needed and What Additional Replication Features it Makes Possible  
How to Prepare a Database for Integrated Capture – Creation of Users, Assignments of Roles and Privileges, etc  
Oracle GoldenGate Integrated Capture Deployment Modes  
Integrated Replicat/Apply Architecture  
Integrated Replicat: How it works  
Integrated Delivery in Detail

## **DDL Replication**

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

## **Bidirectional Replication**

Detecting Loops  
Avoiding Conflicts  
Configuring and Using Conflict Detection and Resolution  
Identifying different Types of Issues in CDR

## **Filtering and Data Selection**

Filtering and Data Selection  
Mapping Columns Between Different Schemas Using Built-in "@" (at) Functions

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Using SQLEXEC to Interact Directly with a Database

## **Additional Transformation Concepts**

Configuring and Using Macros

Configuring and Using User Tokens

Configuring and Using Oracle Sequences

## **Configuration Options**

Configuring and Using BATCHSQL, Compression and Encryption

## **Patching and Upgradation Oracle GoldenGate for Oracle**

Installing Patches

Upgradation Oracle GoldenGate for Oracle

## **Oracle GoldenGate Performance Best Practices**

Oracle GoldenGate Performance Tuning Methodology

Oracle GoldenGate Latency check

Integrated Extract and integrated Replicat health check

Monitoring end to end GoldenGate

## **Troubleshooting Oracle GoldenGate**

Source and Target Sync

Common Problems and Solutions Process failures

Trail-file issues

Synchronization problems

Startup problems on source and target systems

Database configuration and availability issues

## **Conflict Detection and Resolution – Custom Techniques**

Custom Conflict Resolution Techniques: Quantitative Methods for Conflict Resolution and Data Convergence

Automatic Conflict Resolution Based on Time stamp or Trusted Source

Automatic Data Convergence of Numeric Values Based on Additive Value or Average Value

## **Resync Tables / Schemas**

## **Bidirectional Replication Conjunction with USEDELTA, USEMAX, and IGNORE:**



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Bi-Directional Replication Data Conflict Types

Getting Before Image Information from Source Database

Using RESOLVECONFLICT

Handling UPDATEROWEXISTS in Conjunction with USEDELTA, USEMAX, and IGNORE

Exceptions MAP Statement Creating and Populating Exception and Discard Tables

## **Data Mapping, Data Selection/Filtering and Data Transformation**

TABLE (for Extract) and MAP (for Replicat) Options Which Allow for Data Selection

## **Downstream Goldengate Setup**

COLMAP and COLMATCH Options

Exploring Simple Filtering (Achieved Through the WHERE Clause) and Complex Filtering (Using the FILTER Clause)

## **Configuring Near Zero-Downtime Migration Replication**

Near Zero-Downtime Migration

Prerequisites Zero-Downtime Migration topology

Configuring Initial Setup and Required Steps

Configuring Primary Extract, Data pump and Replicat for Fallback Simulating fallback

## **Migrating From Oracle To PostgreSQL Using Goldengate**

## **Oracle GoldenGate for Heterogeneous Databases Setup Like Oracle To PostgreSQL/MySQL**

## **Goldengate Setup for RAC Container Database**

## **Setting up Oracle Cloud Infrastructure (OCI) GoldenGate Different Deployments types such as, Oracle Database, MySQL**

## **Oracle Goldengate Veridata**

Create Datasource Connections for source and target databases, create groups, configure compare pairs, create and execute jobs, view reports, repair data, and generate SQL files

Veridata supports for homogeneous and heterogeneous comparisons

Generate Repair SQL to fix out-of-sync schema data mismatches