

Oracle GoldenGate 19c: Fundamentals for Oracle

Duration: 4 Days

Course Description:

This Oracle GoldenGate 19c: Fundamentals for Oracle training focuses on Oracle-to-Oracle database replication. Expert Oracle University instructors will deep dive into the Oracle GoldenGate product suite, walking you through various product features.

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
- Manage multiple Oracle GoldenGate instances

Course Outlines:

Introduction

- > Introduction
- Use Case Example
- Oracle GoldenGate for Oracle Database Offload Redo Logs
- Supported Operating Systems
- Verifying the Lab Environment

Oracle GoldenGate Architecture

- Oracle GoldenGate Architecture
- Oracle GoldenGate Classic Architecture
- Microservices Architecture
- Microservices Architecture: Secure and Nonsecure Deployments
- Extract Types
- Checkpoints: Capture

Installing Oracle GoldenGate Microservices Architecture

- > Installing Oracle GoldenGate Microservices Architecture
- Phase 2: Creating Certificates
- > Phase 3, oggca.sh Step 10: Replication Options
- > Installing the Oracle GoldenGate Microservices Architecture Software
- Configuring Oracle Wallet and Client and Server Certificates
- Using oggca.sh to Configure the Service Manager and Source and Target Deployments (Part 01)
- Using oggca.sh to Configure the Service Manager and Source and Target Deployments (Part 02)
- Verifying the Successful Installation and Configuration of the MA Implementation

Installing Oracle GoldenGate Classic Architecture

- Installing Oracle GoldenGate Classic Architecture
- > Installation on Linux Using a tar Command
- > Running Oracle GoldenGate from the OS Shell
- > Installing Oracle GoldenGate Classic Architecture
- Setting the Stage
- Using the GGSCI

Preparing the Environment

- Preparing the Environment
- Preparing the Environment: Supplemental Logging
- ➤ Handling TCP/IP Errors
- Preparing the Environment (Part01)
- Preparing the Environment (Part02)

Configuring the Extracts

- Configuring the Extracts
- > MA Administration Server: Webpage Overview
- > CA Editing Extract Parameters: ggsci Example
- Data Definition Language Replication
- Configuring Integrated Extract
- Configuring Classic and Pump Extracts

Oracle GoldenGate Microservices Architecture: Distribution Server

- Oracle GoldenGate Microservices Architecture: Distribution Server
- Web Page Overview
- > Configuring a Path Using the adminclient

COURSE OUTLINE



Oracle GoldenGate Microservices Architecture: Receiver Server

- Oracle GoldenGate Microservices Architecture: Receiver Server
- Secure GoldenGate Host Machine with Reverse Proxy
- > Accessing the Receiver Server to Display Path Statistics
- Configuring Reverse Proxy (Part01)
- Configuring Reverse Proxy (Part02)

Configuring Initial Load

- Configuring Initial Load
- Prerequisites for Initial Load
- > MA Initial Load: Oracle GoldenGate Methods
- Configuring Initial Load by Using File to Replicat Method (Part 01)
- Configuring Initial Load by Using File to Replicat Method (Part 02)
- Configuring Initial Load by Using Oracle Data Pump
- Configuring Initial Load by Using Bulk Load

Configuring Replicat

- Configuring Replicat
- Comparison of Replicats
- > Parallel Replicat
- MA: Change Delivery Tasks
- Obtaining Process Information: adminclient or GGSCI
- Configuring Parallel Replicat Nonintegrated Mode Using adminctient
- Generating Activity and Testing Replication
- Configuring Parallel Replicat Using GGSCI

Managing Extract Trails and Files

- Managing Extract Trails and Files
- Alternative Trail Formats
- Counting Records in the Trail
- Using the logdump Utility

Oracle GoldenGate Parameters

- Oracle GoldenGate Parameters
- MA Managed Process Settings Profile
- > Extract Parameter Categories
- Replicat Parameter Categories
- Configuring an Administration Server Managed Process Settings Profile and Purge Trails Task for Extract
- Configuring an Administration Server Managed Process Settings Profile and Purge Trails Task for Replicat
- Modifying Extract Parameters
- Modifying Source Manager Parameters
- Modifying Target Manager Parameters

Data Selection and Filtering

- > Data Selection and Filtering
- > MA Distribution Server Path: Filter Clause
- > @IF Function
- > SQLEXEC: Usage with a LOOKUP Stored Procedure
- Practice 13-1: Configuring Filters in Extract and Replicat Groups (Part 01)
- Configuring Filters in Extract and Replicat Groups (Part 02)
- Creating a Path Filter
- Mapping Different Column and Table Names Between Source and Target (Part 01)
- Mapping Different Column and Table Names Between Source and Target (Part 02)
- Invoking Stored Procedures from Coordinated Replicat Processes

Data Transformation and Configuration Options

- Data Transformation and Configuration Options
- User Tokens: Overview
- Sample User Exits
- > Encryption: Overview
- CA Password Encryption: Method 1
- > Triggering and Executing End-of-Day Job (Database Backup) via EVENTACTIONS (Part 01)
- > Triggering and Executing End-of-Day Job (Database Backup) via EVENTACTIONS (Part 02)
- Configuring CA Pump Extract to Send Changes to MA Receiver Server (Part 01)
- Configuring CA Pump Extract to Send Changes to MA Receiver Server (Part 02)

Oracle GoldenGate Microservices Architecture—Performance Metrics Server

- Oracle GoldenGate Microservices Architecture— Performance Metrics Server
- Replicat Group: Process Performance Analysis
- Causing Database Activity and Monitoring Through the Performance Metrics Server (Part 01)
- > Causing Database Activity and Monitoring Through the Performance Metrics Server (Part 02)

Database Sharding Support, Replication Lag Management, Invisible Column Support

- Database Sharding Support, Replication Lag Management, Invisible Column Support
- Oracle GoldenGate MA Sharding Advantages
- Accessing Heartbeat Statistics
- Configuring Replication Lag and Checking Lag Statistics for MA
- Configuring Replication Lag and Checking Lag Statistics for CA and MA
- Replicating Invisible Columns