

# ORACLE GOLDENGATE

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## COURSE CONTENT

### 1) Introduction

- Describe the features and functionality of Oracle GoldenGate 11g (11.2.1.0.0)
- Identify key capabilities and differentiators
- Describe Oracle GoldenGate high-availability and disaster tolerance solutions
- Describe Oracle GoldenGate real-time data integration solutions

### 2) Technology Overview

- List the building blocks that make up Oracle GoldenGate functionality
- List the supported databases and platforms
- Describe the Oracle GoldenGate product line:
  - Oracle GoldenGate Veridata
  - Management Pack for Oracle GoldenGate
    - Oracle GoldenGate Director
    - Oracle GoldenGate Monitor
  - Oracle GoldenGate for Flat File
  - Oracle GoldenGate for Java

### 3) Oracle GoldenGate Architecture

- Describe the logical Oracle GoldenGate architecture and components
- Describe Oracle GoldenGate process groups
- Explain change capture and delivery
- Explain initial data load
- Compare batch and online operations
- Explain Oracle GoldenGate checkpointing
- Describe the commit sequence number (CSN)
- Describe Oracle GoldenGate files

### 4) Installing Oracle GoldenGate

- Download the required Oracle GoldenGate Media Pack
- Install Oracle GoldenGate on Linux, UNIX, and Windows
- Run Oracle GoldenGate commands from the Oracle GoldenGate Software Command Interface (GGSCI)
- Identify the types of GGSCI commands available
- Use Obey files

## 5) Configuration Overview and Preparing the Environment

- Describe the high-level configuration steps
- Configure and start the Manager process
- Configure supplemental logging
- On the database
- At the table level
- Generate source definitions files
- Prepare a source database for transaction capture

## 6) Configuring Change Capture

- Describe what the Extract process does
- Configure, start, and stop an Extract process
- Configure, start, and stop an Extract data pump
- Add local and remote trails
- Configure Extract to access logs on Oracle Automatic Storage Management (ASM)

## 7) Configuring Change Delivery

- Explain what the Replicat process does
- Configure and start a Replicat process
- Configure Replicat to handle collisions between changes and the Initial Load data
- Troubleshoot a started solution

## 8) Extract Trail and Files

- Describe and contrast Extract trails and files
- Describe the formats that Extract trails and files can have
- View Extract trails and files with logdump
- Reverse the sequence of operations in an Extract trail or file (to back out changes)

## 9) Configuring the Initial Load

- Describe Oracle GoldenGate initial load methods
- Identify the prerequisites before initiating an initial load
- Explain the advantages of Oracle GoldenGate methods
- Configure an initial load by using Oracle GoldenGate

## 10) Oracle GoldenGate Parameters

- Edit parameter files
- Compare GLOBALS parameters with process parameters
- Describe commonly used parameters for:
  - GLOBALS
  - Manager
  - Extract
  - Replicat
  - Both Extract and Replicat

### 11) Data Selection and Filtering

- Select and filter data for replication
- Map columns between different schemas
- Use built-in @ functions
- Use SQLEXEC to interact directly with a database

### 12) Additional Transformation Topics

- Create and invoke macros
- Set and retrieve user tokens
- Run user exits in GoldenGate processes
- Replicate Oracle sequences

### 13) Configuration Options

- Use BatchSQL to speed delivery
- Compress data across the network
- Encrypt messages, trails, and passwords
- Automatically trigger actions based on Event records

### 14) Bidirectional Replication

- Describe bidirectional configuration
- Detect and avoid loops
- Handle bidirectional issues such as loop detection
- Detect and resolve conflicts
- Handle identity types

### 15) DDL Replication

- Describe the concept of DDL replication
- Explain the requirements for Oracle DDL replication
- Describe Oracle GoldenGate options for DDL replication
- Explain how to activate DDL capture