

**OGG12c-AC: Oracle GoldenGate 12c:
Advanced Configuration for Oracle**

Course Code: OGG12c-AC

Duration: 4 days

Instructor-led Training (ILT) | Virtual Instructor-
led Training (VILT)**OVERVIEW**

Enrolling in this Oracle GoldenGate 12c training will help you develop your installation and configuration skills. By interacting with top Oracle instructors, you will be able to ask questions as you learn to solidify your understanding.

Learn How To:

- Explain Oracle GoldenGate advanced configuration options.
- Describe and take advantage of the Integrated Capture feature and the recently introduced Integrated Replicat feature to replicate complex data types and compressed data.
- Integrate the Database File System (DBFS) with Oracle GoldenGate to achieve Maximum Availability.
- Configure and implement the Oracle GoldenGate Event Marker system.
- Enable data transformation based on event records in the transaction logs or in the trail files.
- Perform zero-downtime database migration.
- Set up and manage advanced deployment models, like 3-node multi master replication configuration.
- Master Oracle GoldenGate facilities to detect and resolve data conflicts in active-to-active replication implementations.
- Use a simulated Oracle RAC configuration to experiment with the

Oracle GoldenGate Clusterware-aware facilities, which ensure seamless data replication in case of node failure.

SKILLS COVERED

- Familiarize the student with Data Conflict Avoidance Techniques
- Set up and manage advanced deployment models, such as 3-node multi master replication configurations
- Integrate Oracle GoldenGate with Oracle cluster configurations
- Explain Oracle GoldenGate Advanced Configuration options
- Describe and take advantage of the Integrated Capture feature to extract complex data types and compressed data
- Introduce the new Integrate Replicat feature for improved data delivery
- Configure and implement the Oracle GoldenGate Event Marker system, to enable data transformation based on event records in the transaction logs or in the trail files
- Master Oracle GoldenGate facilities to detect and resolve data conflicts in active-to-active replication implementations
- Perform zero-downtime database migration

WHO SHOULD ATTEND?

- Architect
- Database Administrators
- Database Designers
- Data Scientist
- Data Warehouse Administrator
- Process Developer
- System Integrator

PREREQUISITES

Suggested Prerequisite

- Oracle GoldenGate 12c: Troubleshooting and Tuning Ed 1
- Oracle GoldenGate 12c: Fundamentals for Oracle Ed 1
- Oracle GoldenGate 12c: Fundamentals for Oracle

MODULES

Module 1: Introduction

- Introduction
- Practice 1-1: Overview

Module 2: Oracle GoldenGate Integrated Capture/Apply

- Oracle GoldenGate Integrated Capture/Apply, Part 1
- Oracle GoldenGate Integrated Capture/Apply, Part 2
- Oracle GoldenGate Integrated Capture/Apply, Part 3
- Oracle GoldenGate Integrated Capture/Apply, Part 4
- Practice 2-1: Checking the Oracle Instance Parameters That Affect Replication
- Practice 2-2: Preparing the Oracle Source Database
- Practice 2-3: Preparing the Oracle Target Database
- Practice 2-4: Preparing the Oracle GoldenGate Environment
- Practice 2-5: Set Up Replication
- Skill Check: Oracle GoldenGate Integrated Capture/Apply. Score 80% or higher to pass

Module 3: Integrated Capture Deployment and Required Components

- Integrated Capture Deployment and Required Components, Part 1
- Integrated Capture Deployment and Required Components, Part 2

- Practice 3-1: Using the Oracle GoldenGate Wallet Facility
- Practice 3-2: Preparing Source and Downstream Database for Integrated Capture
- Practice 3-3: Deploying Integrated Capture by Using Downstream Real-Time Mode
- Skill Check: Integrated Capture Deployment and Required Components. Score 80% or higher to pass

Module 4: Oracle GoldenGate with Oracle Real Application Clusters Configuration

- Oracle GoldenGate with Oracle Real Application Clusters Configuration, Part 1
- Oracle GoldenGate with Oracle Real Application Clusters Configuration, Part 2
- Practice 4-1: Prepare the Environment
- Practice 4-2: Configuring DBFS, Part 1
- Practice 4-2: Configuring DBFS, Part 2
- Practice 4-3: Configuring DBFS as a CRS Service
- Skill Check: Oracle GoldenGate with Oracle Real Application Clusters Configuration. Score 80% or higher to pass

Module 5: Oracle GoldenGate Event Marker System

- Oracle GoldenGate Event Marker System, Part 1
- Oracle GoldenGate Event Marker System, Part 2
- Practice 5-1: Triggering an End-of-Day Job (Database Backup)
- Practice 5-2: Stopping Processing on Detecting Data Anomalies
- Practice 5-3: Tracing the Insertion of Rows Where Specific Columns Carry Abnormally High Values

- Practice 5-4: Executing Shell Scripts to Validate Data and Sending an Email When Validation Fails
- Skill Check: Oracle GoldenGate Event Marker System. Score 80% or higher to pass

Module 6: Data Mapping, Data Selection/Filtering, and Data Transformation

- Data Mapping, Data Selection/Filtering, and Data Transformation, Part 1
- Data Mapping, Data Selection/Filtering, and Data Transformation, Part 2
- Data Mapping, Data Selection/Filtering, and Data Transformation, Part 3
- Data Mapping, Data Selection/Filtering, and Data Transformation, Part 4
- Practice 6-1: Column Mapping Between Dissimilar Source and Target Tables
- Practice 6-2: Data Selection in Extract and Replicat Streams
- Practice 6-3: Applying Data Transformation Functions
- Practice 6-4: Using SQLEXEC to Invoke a Stored Procedure
- Skill Check: Data Mapping, Data Selection/Filtering, and Data Transformation

Module 7: Custom Behavior Through User Exits

- Custom Behavior Through User Exits, Part 1
- Custom Behavior Through User Exits, Part 2
- Practice 7-1: Verifying the Java Environment and Installing Apache ActiveMQ and Oracle GoldenGate for Java
- Practice 7-2: Configuring Data Capture
- Practice 7-3: Configuring Data Delivery to ActiveMQ
- Practice 7-4: Generating Data and Verifying Replication

- Skill Check: Custom Behavior Through User Exits. Score 80% or higher to pass

Module 8: Configuring Zero Down-Time Migration Replication

- Configuring Zero Down-Time Migration Replication, Part 1
- Configuring Zero Down-Time Migration Replication, Part 2
- Configuring Zero Down-Time Migration Replication, Part 3
- Practice 8-1: Configuring a Zero-Down Time Migration, Part 1
- Practice 8-1: Configuring a Zero-Down Time Migration, Part 2
- Practice 8-2: Configuring the Fallback
- Practice 8-3: Performing Migration Cutover
- Practice 8-4: Aborting the Migration
- Skill Check: Configuring Zero Down-Time Migration Replication. Score 80% or higher to pass

Module 9: Bidirectional Replication: Two-Node Configuration

- Bidirectional Replication: Two-Node Configuration, Part 1
- Bidirectional Replication: Two-Node Configuration, Part 2
- Bidirectional Replication: Two-Node Configuration, Part 3
- Practice 9-1: Configuring an Active-Active Replication Topology, Part 1
- Practice 9-1: Configuring an Active-Active Replication Topology, Part 2
- Practice 9-2: Setting Up DDL Replication and Verifying Correct Propagation of DML and DDL Statements
- Practice 9-3: Enabling CDR-Based Conflict Detection and Resolution
- Skill Check: Bidirectional Replication: Two-Node Configuration. Score 80% or higher to pass

**Module 10: Conflict Detection and Resolution:
Custom Techniques**

- Conflict Detection and Resolution: Custom Techniques, Part 1
- Conflict Detection and Resolution: Custom Techniques, Part 2
- Practice 10-1: Data Conflict Avoidance Techniques
- Practice 10-2: Resolving Data Conflicts by Using Quantitative Resolution Methods
- Skill Check: Conflict Detection and Resolution: Custom Techniques. Score 80% or higher to pass

**Module 11: Multi-Master Replication
Topology: Three-Node Configuration**

- Multi-Master Replication Topology: Three-Node Configuration
- Practice 11-1: Creating a Three-Way Active-Active Replication Environment, Part 1
- Practice 11-1: Creating a Three-Way Active-Active Replication Environment, Part 2
- Practice 11-1: Creating a Three-Way Active-Active Replication Environment, Part 3
- Practice 11-1: Creating a Three-Way Active-Active Replication Environment, Part 4
- Practice 11-2: Configuring CDR for a Multi-Master Replication Environment
- Skill Check: Multi-Master Replication Topology: Three-Node Configuration. Score 80% or higher to pass

**Module 12: Active Data Guard and Oracle
GoldenGate: How to Achieve Maximum
Availability**

- Active Data Guard and Oracle GoldenGate: How to Achieve Maximum Availability, Part 1
- Active Data Guard and Oracle GoldenGate: How to Achieve Maximum Availability, Part 2
- Practice 12-1: Prepare the Environment, Part 1
- Practice 12-1: Prepare the Environment, Part 2
- Practice 12-2: Configuring Oracle GoldenGate Replication, Part 1
- Practice 12-2: Configuring Oracle GoldenGate Replication, Part 2
- Practice 12-3: Configuring the Oracle Bundled Agent (XAG)
- Practice 12-4: Failing a RAC Node to Test Oracle GoldenGate Survival
- Skill Check: Active Data Guard and Oracle GoldenGate: How to Achieve Maximum Availability. Score 80% or higher to pass

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