

Oracle GoldenGate 12c: Fundamentals for Oracle Ed 2

Course Duration: 32 Hours

Course code: Oracle GoldenGate 12c

1. Course Overview

This course provides a strong foundation in Oracle GoldenGate 12c architecture, configuration, and administration for Oracle databases. Participants will learn how to capture, route, and deliver transactional data in real-time, design replication solutions, and implement high-availability environments using GoldenGate. Hands-on practices include installation, parameter configuration, process management, and troubleshooting replication.

2. What you'll learn?

By the end of this course, you will be able to:

- Describe Oracle GoldenGate 12c architecture and key features
- Install and configure GoldenGate for Oracle environments
- Use Extract, Pump, and Replicat processes for data replication
- Implement initial load and change synchronization
- Configure checkpointing and parameter files
- Manage GoldenGate process groups and monitor replication
- Apply security and high availability features
- Troubleshoot common GoldenGate issues

3. Target Audience

- Database Administrators (DBAs)
- Data Architects and Engineers
- Technical Consultants implementing replication
- System Administrators supporting Oracle environments

4. Pre-Requisites

- Knowledge of Oracle Database architecture and administration
- Understanding of SQL and PL/SQL

- Familiarity with basic Linux/Unix commands

5. Course content

Module 1: Introduction to Oracle GoldenGate 12c

- GoldenGate product overview
- Key use cases and benefits
- Supported Oracle Database versions and platforms

Module 2: GoldenGate Architecture and Components

- Extract, Pump, and Replicat processes
- Trails, checkpoints, and parameter files
- Manager process overview

Module 3: Installing and Configuring GoldenGate

- GoldenGate installation on Oracle environments
- Configuring Manager process
- Setting up environment variables

Module 4: Extract and Replicat Configuration

- Creating Extract and Replicat groups
- Configuring parameter files
- Registering Extract with the database

Module 5: Initial Load and Synchronization

- Initial data load methods
- File-based and direct load
- Coordinating with change capture

Module 6: Data Pump and Routing

- Configuring data pump processes
- Multi-hop replication scenarios

- Using trails for data transfer

Module 7: Checkpointing and Recovery

- Checkpoint files and trail management
- Restart and recovery procedures
- Handling process failures

Module 8: GoldenGate Monitoring and Administration

- GGSCI commands for process management
- Monitoring Extract and Replicat
- Interpreting log and report files

Module 9: GoldenGate Security Features

- Secure replication with encryption
- Password and credential management
- Secure parameter files

Module 10: Advanced Topics and Best Practices

- High availability deployment patterns
- Bidirectional replication
- Conflict detection and resolution
- Tuning GoldenGate performance

Module 11: Troubleshooting GoldenGate

- Common replication issues
- Diagnostic tools and reports
- Resolving data and configuration errors