

Oracle GoldenGate 12c for Big Data - Fundamentals for Administrators

Course Summary

Description

This 5-day course covers the infrastructure and architecture of both Oracle's GoldenGate software and related source and Big Data target as it affects replication and migration. In the class students will obtain the skill set required to design, deploy, install, and configure GoldenGate software. Students will learn "best practices" for managing GoldenGate in multiple scenarios. The course focuses not just on syntax but on real-world deployment issues including data security, performance tuning, debugging, troubleshooting, and removal of GoldenGate from the environment.

Objectives

After taking this course, students will be able to:

- Have a working knowledge of implementation requirements for homogeneous and heterogeneous replication and migration.
- Deploy and configure GoldenGate software connecting a database instance source to a Big Data target
- Run and manage Oracle GoldenGate software
- Learn basic troubleshooting skills for the GoldenGate environment

Topics

- Technology Overview
- Replication Architecture Overview
- Big Data Support Overview
- Installation and Deployment of Oracle GoldenGate software
- Oracle GoldenGate Configuration Management "Best Practices"
- Basic Troubleshooting, Exception Handling and Debugging
- System Clean-up

Audience

This course is designed for those wanting to obtain the skill set required to design, deploy, install, and configure GoldenGate software.

Prerequisites

There are no prerequisites for this course.

Duration

Five days

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Course Outline

- I. Technology Overview**
 - A. Brief overview of database replication and migration technologies
 - B. Review of database preparations for successful replication deployment
 - C. Security features
- II. Replication Architecture Overview**
 - A. Review of single directional use cases
 - B. Detailed examination of GoldenGate architecture, tools, and processes including trail files
 - C. Design and architectural considerations for basic replication, high availability and disaster recovery scenarios
 - D. Change Management and DDL Replication
 - E. Review of initial load technologies, considerations, and configuration
- III. GoldenGate Big Data Adapters Overview**
 - A. Overview of the Big Data Adapter
 - B. Overview of the Big Data Handlers
 - C. List of available Big Data targets
- IV. Installation and Deployment of Oracle GoldenGate software**
 - A. Hands-on pre-installation steps for GoldenGate
 - B. Hands-on GoldenGate software installation
 - C. Hands-on post-installation review of the deployed GoldenGate infrastructure
 - D. Hands-on configuration of GoldenGate parameters and parameter files
 - E. Hands-on Initial data load
- V. Oracle GoldenGate Configuration Management "Best Practices"**
 - A. Deep dive into management "Best Practices"
 - B. Hands-on change data capture management
 - C. Hands-on Change Data Capture configuration
 - D. Hands-on Change Delivery configuration
 - E. Hands-on starting and stopping GoldenGate processes
 - F. Hands-on running GoldenGate commands from the O/S shell
 - G. Hands-on running GoldenGate commands in GGSCI
 - H. Hands-on running GoldenGate commands from obey files
- VI. Capturing using the Big Data Adapters**
 - A. Capturing for Cassandra
- VII. Applying using the Big Data Adapters**
 - A. Using the Kafka Handler
 - B. Using the Flume Handler
 - C. Using the MongoDB Handler
 - D. Using the Casandra Handler
 - E. Using the HBase Handler
 - F. Overview of the remaining adapters
 - G. Connecting to the Microsoft Azure Data Lake
- VIII. Basic Troubleshooting, Exception Handling and Debugging**
 - A. Reporting and statistics collection
 - B. Basic exception handling
 - C. DDL replication errors
 - D. Managing TCP/IP errors
 - E. Troubleshooting GoldenGate environments
 - F. Introduction to the LOGDUMP utility
- IX. System Clean-up**
 - A. Uninstalling GoldenGate from Linux/UNIX
 - B. Uninstalling GoldenGate from the source and target database