Oracle GoldenGate 11g: Fundamentals for Oracle

Duration: 4 Days – 8 hours per day – Total 32 Hours

What you will learn:

The Oracle GoldenGate 11g: Fundamentals for Oracle Edition 2 course focuses on Oracle-to-Oracle database replication.

This course introduces the Oracle GoldenGate architecture as well as various product features.

Participants learn to install Oracle GoldenGate and prepare the source and target environments. The course teaches how to use the Oracle GoldenGate command line interface (GGSCI) efficiently.

Participants configure Change Capture (Extract), Change Delivery (Replicat), and Initial Load.

They learn to extract trails and files using Data Pump, create parameter files, and to manage Oracle GoldenGate instances. Capture of both DML and DDL will be configured for both uni- and bi-directional replication.

Learn To:

Install Oracle GoldenGate on Linux and Windows platforms

Issue GGSCI commands

Configure, start, stop, and monitor Change Capture and Delivery processes

Manage Extract trails and files using Data Pump and logdump

Create parameter files to transform data

Manage multiple Oracle GoldenGate instances

This course is based on Oracle Golden Gate version 11.2.1.

Audience

Configuration Consultant

Data Warehouse Administrator

Data Warehouse Analyst

Data Warehouse Developer

Database Administrators

Database Designers

System Integrator

Technical Consultant

Required Prerequisites

Familiarity with Oracle Database and basic SQL using SQL*Plus.

Suggested Prerequisites

Familiarity with Linux text editors such as vi or gedit

Course Objectives

Design replication solutions using Oracle GoldenGate products and environments

Install Oracle GoldenGate on Linux and Windows platforms (the labs are Linux)

Prepare the source and target database environments (assumes Oracle-to-Oracle replication)

Issue GGSCI commands (batch Obey scripts and command-line interactive)

Configure, start, stop, and monitor Change Capture (Extract)

Configure, start, stop, and monitor Change Delivery (Replicat)

Configure, start, stop, and monitor Initial Load

Manage Extract trails and files using Data Pump and utilities such as logdump

Control network transmission using compression and encryption

Create parameter files

Transform data

Manage multiple Oracle GoldenGate instances

Course Topics

Introduction

Discussing Required versus Suggested Knowledge

Listing Course Objectives

Discussing Course Non-Objectives (available as other follow-on courses)

Technology Overview

Creating Oracle GoldenGate Topologies

Reviewing Oracle GoldenGate Use Cases

Assembling Building Blocks

Listing Supported OS

Listing Supported Databases

Listing the Oracle Goldengate Product Line

Describing GUI Management Options

Listing Non-Database Sources and Targets

Oracle GoldenGate Architecture

Describing Oracle GoldenGate Process Groups

Explaining change Capture and Delivery (with and without a data pump)

Explaining Initial Data Load

Contrasting Batch and Online Operation

Explaining Oracle GoldenGate Checkpointing

Describing Commit Sequence Numbers (CSN)

Describing Oracle GoldenGate Files and Directories

Installing Oracle GoldenGate

Listing System Requirements

Performing Installation

Configuring Environment Variables

Using GGSCI

Running Oracle GoldenGate from the OS shell.

Configuration Overview and Preparing the Environment

Reviewing Configuration Overview

Configuring Manager Process

Creating Source Definitions

Preparing the Source Database

Assigning Oracle Database Roles/Privileges Required

Configuring Change Capture (Extract)

Reviewing Extract Overview

Accessing Logs on Oracle ASM

Accessing Logs Remotely

Configuring Extract Tasks

Adding Extract Group

Editing Extract Parameters

Extracting Use of Archived Transaction Logs

Adding Trails

Configuring Change Delivery (Replicat)

Reviewing Replicat Overview

Configuring Replicat Tasks

Configuring a Sample Environment

Configuring Extract Trails and Files (Data Pump)

Reviewing Extract Trails and Files Overview

Describing Trail Formats

Using Logdump for Viewing Trails

Reversing the Trail Sequence

Configuring and Using Data Pumps

Performing Initial Load

Oracle GoldenGate Methods

Listing Database-specific Methods

Describing Resource Limitations

Listing Advantages of Oracle GoldenGate Methods

Configuring File Load Methods

Configuring Direct Load Methods

Handling Collisions with Initial Load

Editing Configuration Parameters

Editing Parameter Files

Contrasting GLOBALS versus Process Parameters

Configuring GLOBALS Parameters

Configuring Manager Parameters

Configuring Extract Parameters

Configuring Replicat Parameters

Filtering and Data Selection

Filtering and Data Selection

Mapping Columns Between Different Schemas

Using Built-in "@" (at) Functions

Using SQLEXEC to Interact Directly with a Database

Additional Transformation Concepts

Configuring and Using Macros

Configuring and Using User Tokens

Configuring and Using User Exits

Configuring and Using Oracle Sequences

Configuration Options

Configuring and Using BATCHSQL

Configuring and Using Compression

Configuring and Using Encryption

Configuring and Using Event Actions

Bidirectional Replication

Reviewing Bidirectional Considerations

Detecting Loops

Avoiding Conflicts

Configuring and Using Conflict Detection and Resolution

Describing Identity Types Issues

DDL Replication

Reviewing Data Description Language Replication Overview

Configuring and Using Options for DDL Replication

Configuring and Using String Substitution in DDL