

Oracle GoldenGate 12c: Integrate Big Data Ed 1

Oracle Database

DURATION

3 Days

MODULES

6 Lectures

COURSE CODE

—

Course Overview

Lab practices complete the didactic experience of students who have the chance to configure and perform data replication between an Oracle RDBMS (relational database management system) and the various technologies supported by the Oracle GoldenGate for Big Data software.

What You Will Learn

- 1 Oracle GoldenGate 12c: Integrate Big Data
- Course Objectives
- Lesson Objectives
- Agenda of Lessons
- Lesson 1 Agenda
- Product Overview
- Integration with Oracle GoldenGate Core Instances
- OGG for Big Data: Typical Data Flow
- Lesson 1 Agenda
- Oracle GoldenGate Adapter Architecture
- Crossover Functionality
- Lesson 1 Agenda
- Oracle GoldenGate Java Adapter: Message Capture and Delivery
- Oracle GoldenGate Java Adapter: No Code Required
- Lesson 1 Agenda
- Configuring the Vendor Access Module (VAM) Extract
- Adding the VAM Extract
- VAM Extract Parameters
- VAM Properties File
- VAM Properties File: Example
- Lesson 1 Agenda
- Message Parsing: Overview
- Parser Types
- Parser Properties Example

- Lesson 1 Agenda
- Replicat for Java Delivery
- Adding the Java Delivery Replicat
- Replicat Parameters
- Replicat Parameter File: Example
- Java Handlers
- 1-30
- Replicat Java Handler: Kafka Example
- Oracle GoldenGate for Big Data: Useful Links
- Quiz
- Summary
- Practice 1: Overview
- iii
- 2 Configuring and Using the Hadoop HDFS Handler
- Objectives
- Hadoop Distributed File System (HDFS): Overview
- Apache Avro
- Hadoop Sequence Files
- HDFS Handler Supported Formats
- HDFS Handler Classpath Configuration
- Relevant HDFS Handler Configuration Parameters: 1
- Relevant HDFS Handler Configuration Parameters: 2
- HDFS Handler Properties File: Example
- HDFS Partitioning
- HDFS Metadata Change Events
- HDFS Handler Best Practices
- HDFS Handler Performance Considerations
- Quiz
- Summary
- Practice 2: Overview
- 3 Configuring and Using the Hadoop HBase Handler
- Objectives
- HBase Overview
- HBase Handler Functionality
- HBase Row Key
- HBase Column Family
- HBase Handler Classpath Configuration
- Relevant HBase Handler Configuration Parameters: 1
- Relevant HBase Handler Configuration Parameters: 2
- HBase Handler Properties File: Example
- HBase Handler Best Practices
- HBase Metadata Change Events
- Quiz
- Summary
- Practice 3: Overview
- 4 Configuring and Using the Apache Flume Handler

- Objectives
- Flume Overview
- Flume Handler Setup
- Flume Handler Classpath Configuration
- Relevant Flume Handler Configuration Parameters: 1
- Relevant Flume Handler Configuration Parameters: 2
- iv
- Flume Handler Properties File: Example
- Mapping Operations to Flume Events
- Mapping Transactions to Operational Flume Events
- Mapping Transactions to Transactional Flume Events
- Metadata Change Events
- Flume Handler Schema Propagation
- Flume Handler Advanced Features
- Quiz
- Summary
- Practice 4: Overview
- 5 Configuring and Using the Apache Kafka Handler
- Objectives
- Kafka Overview
- Kafka Core APIs
- Kafka Handler Setup
- Kafka Handler Classpath Configuration
- Relevant Kafka Handler Configuration Parameters: 1
- Relevant Kafka Handler Configuration Parameters: 2
- Kafka Handler Properties File: Example
- Kafka Producer Configuration File
- Kafka Handler Schema Propagation
- Kafka Handler Best Practices
- Kafka Handler Advanced Configuration
- Quiz
- Summary
- Practice 5: Overview
- 6 Configuring and Using the Cassandra Handler
- Objectives
- Cassandra Overview
- ACID Properties Versus Eventual Consistency
- Cassandra Handler: Supported Data Types
- Schema, Table, and Column Mapping
- Cassandra Primary Keys
- Cassandra Handler Operation Processing
- Compressed Versus Full Image Updates
- Cassandra Handler Classpath Configuration
- Relevant Cassandra Handler Configuration Parameters: 1
- Relevant Cassandra Handler Configuration Parameters: 2
- Cassandra Handler Properties File: Example

- V
- Cassandra Handler Best Practices
- Quiz
- Summary
- Practice 6: Overview
- 7 Configuring and Using the MongoDB Handler
- Objectives
- MongoDB Overview
- MongoDB-Specific Considerations: Document Key Column
- MongoDB-Supported Data Types
- MongoDB Java Driver
- Relevant MongoDB Handler Configuration Parameters: 1
- Relevant MongoDB Handler Configuration Parameters: 2
- MongoDB Connection and Authentication
- MongoDB Handler: Example Properties File
- MongoDB Bulk Write
- Three-Part Table Name Handling
- MongoDB Undo Handling
- Quiz
- Summary
- Practice 7: Overview
- 8 Configuring and Using the Generic JDBC Handler
- Objectives
- JDBC Handler: Overview
- JDBC Handler-Supported Targets
- JDBC Handler Single Operation Mode
- JDBC Handler Classpath Configuration
- Relevant JDBC Handler Configuration Parameters
- JDBC Handler Properties File: Example
- JDBC Handler Error Handling
- Quiz
- Summary
- Practice 8: Overview
- 9 Configuring and Using Pluggable Formatters and the Metadata Provider
- Objectives
- Lesson 9 Agenda
- Pluggable Formatters: Overview
- Operation Formatters
- Row Formatters
- vi
- Formatter Configuration
- Lesson 9 Agenda
- Metadata Provider: Overview
- Metadata Provider: When Is It Necessary?
- Metadata Provider Types
- Metadata Provider Configuration

- Quiz
- Summary
- Practice 9: Overview