Oracle Database 19c: Partitioning in Data Warehouse Live Class

Oracle Database

DURATION	MODULES	COURSE CODE
1 Days	4 Lectures	—

Course Overview

After completing this course, you should be able to: Describe Partitioning Concepts Create Partitioned Tables and Indexes Partition for Performance in a Data Warehouse

What You Will Learn

Course Overview

- Lesson Objectives
- Introduce Yourself
- Lesson Agenda
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- Lesson Agenda
- Course Persona
- Lesson Agenda
- Course Environment
- Sample Database Schema Used in the Course
- The Human Resources (HR) Schema
- The Sales History (SH) Schema
- Class Account Information
- SQL Environments Available in the Course
- Lesson Agenda
- Oracle Useful Documentation
- Resources to Bookmark
- Summary
- Practice 1: Overview

Partitioning Concepts

- Objectives
- Lesson Agenda

- Examine This Graph: What Do You Observe?
- Need for Very Large Databases (VLDBs)
- Challenges with VLDBs: Need for Partitioning
- What Is Partitioning?
- Lesson Agenda
- Benefits of Partitioning: Table Availability
- Benefits of Partitioning: Large-Table Manageability
- Benefits of Partitioning: Performance Considerations
- How Does Partitioning Work?
- Table Versus Index Partitioning
- Quiz
- Lesson Agenda
- Partitioning Methods: Single-level Partitioning
- Composite Partitioning
- Types of Composite Partitioning
- Lesson Agenda
- Partition Keys
- Partition Extensions
- Summary

Creating Partitioned Tables and Indexes

- Objectives
- Lesson Agenda
- The CREATE TABLE Statement with Partitioning
- Logical and Physical Attributes
- Partition Strategy Declaration: Single-Level Partitioning
- Specifying Partition Attributes
- Observe This Scenario
- Range Partition: DDL Example
- Hash Partitioning
- Hash Partition: DDL Example
- Observe This Scenario
- List Partition: DDL Example
- Observe This Scenario
- Interval Partitioning
- Interval Partitioning: Example
- System Partitioning
- System Partitioning: Example
- System Partitioning Guidelines
- Lesson Agenda
- Partition Strategy Declaration: Composite Partitioning
- The CREATE TABLE Statement with Composite Partitioning
- Composite Partitioning Using a Template
- Composite Partition: Range-Hash Example
- Composite Partitioning and Template: Example

- Partitioning External Tables
- Hybrid Partitioning
- Hybrid Partitioned Table: Example
- Multicolumn Partitioning
- Multicolumn Partitioning: Example
- Quiz
- Lesson Agenda
- Scenario: John Tries to Partition a Table
- Reference Partitioning
- Reference Partitioning: Benefit
- Reference Partitioning: Example
- Observe and Answer
- Virtual Column-Based Partitioning
- Virtual Column-Based Partitioning: DDL Example 1
- Virtual Column-Based Partitioning: Example 2
- Auto-List Partitioning: Example
- Partition-Extended Table Names
- Data Dictionary Views: Tables
- Quiz
- Lesson Agenda
- Partitioned Indexes
- Partitioned Index Attributes: Global or Local
- Partitioned Index Attributes: Prefixed or Nonprefixed
- Global Partitioned Index
- Global Partitioned Index: Example
- Local Prefixed Indexes
- Local Prefixed Index: Examples
- Local Nonprefixed Index
- Local Nonprefixed Index: Example
- Specifying an Index with Table Creation
- Data Dictionary Views: Indexes
- Guidelines for Partitioning Indexes
- Quiz
- Summary
- Practice 3: Overview

Partitioning for Performance in a Data Warehouse

- John Learns About Partitioning Performance in a Data Warehouse
- Objectives
- Lesson Agenda
- Examine This Graph: What Do You Observe?
- Data Volume in a Data Warehouse Grows Multifold Over Years
- Examine this Scenario
- Partition Pruning
- How to Identify Partition Pruning in an Execution Plan?
- Partition Pruning Types

- Static Partition Pruning
- Static Partition Pruning: Example
- Static Partition Pruning Execution Plan: Example
- Dynamic Partition Pruning
- Dynamic Partition Pruning: Example
- Partition Pruning Rules
- Partition Pruning with Range Partition: Example 1
- Partition Pruning with Partition Range Iterator: Example 2
- Partition Pruning with INLIST Operator: Example 3
- Partition Pruning in Hash Partitioned Table: Example 4
- Partition Pruning in Hash Partitioned Table: Example 5
- Partition Pruning in Hash Partitioned Table: Example 6
- Partition Pruning in Hash Partitioned Table: Example 7
- Partition Pruning in Composite Partitioned Tables
- Partition Pruning in Range Hash Partitioned Table: Example 8
- Partition Pruning in Range Hash Partitioned Table: Example 9
- Partition Pruning in Range Hash Partitioned Table: Example 10
- Global Partitioned Index: Partition Pruning Example 11
- Partition Pruning with Local Index: Example 12
- Partition Pruning for DML Commands: Example 13
- Partition Pruning for DDL Commands: Example 14
- Partition Pruning Tips
- Lesson Agenda
- Equipartitioning
- Partition-Wise Joins
- Full Partition-Wise Joins
- Partial Partition-Wise Joins
- Quiz
- Summary
- Practice 4: Overview