

ORACLE DATABASE 10G: IMPLEMENT AND ADMINISTER A DATA WAREHOUSE

Data Warehouse Design

Logical Versus Physical Design in Data Warehouses
Data Warehousing Schemas
Data Warehousing Objects
Physical Design in Data Warehouses
Hardware and I/O Considerations

Data Warehousing Schemas

Star Schema Model
Snowflake Schema Model
Tuning Star Queries
Star Transformation Hints
Star Transformation Hints
Static Partition Pruning And Star Query
Dynamic Partition Pruning And Star Query
Dynamic Partition Pruning Determination

Partitioning Basics

Supported partition types
Rolling window operations
Partition pruning
Partitioning Using a Template

Extraction, Transportation, and Loading (Extraction and Transportation)

ETL Tools
Extraction Methods
Logical Extraction Methods
Physical Extraction Methods
Change Data Capture
Transportation Using Transportable Tablespaces
Loading Mechanisms

ETL-Loading

Load a formatted flat file into an existing table with SQL*Loader
Performing basic transformations while loading with SQL*Loader
External tables using oracle_loader driver
External tables using oracle_datapump driver
Loading data with OCI and Direct-path APIs

ETL-Transformation

Transformation Using SQL
Transformation Using PL/SQL
Transformation Using Table Functions
Error Logging and Handling Mechanisms

Parallelism Concepts

- Parallel Operations
- Degree Of Parallelism
- Parallel Execution Plan
- Operations That Can Be Parallelized
- The PARALLEL Clause
- Parallel Query
- Parallel DDL
- Performance Benefits of Parallel DML

Parallel Operations in Data Warehouses

- Automated Parallel Query Tuning
- Data Distribution And V\$PQ_TQSTAT
- Object Statistics And V\$PQ_TQSTAT

Materialized Views

- Materialized Views Overview
- Types Of Materialized Views
- Nested Materialized Views
- Partitioned Materialized Views
- Refresh Methods and Modes
- Altering/Dropping Materialized Views
- Dimensions and Hierarchies
- Dimensions and the Data Dictionary

Dimensions

- Creating dimensions
- Validate dimensions data
- View dimension definition information
- Distinguish between dimensions and constraints

Materialized Views Refresh

- Refresh Methods and Modes
- Identifying Dependent MVs
- Conditions For Complete/Fast Refreshes
- Materialized View Logs
- Parallel Refreshes

Query Rewrite

- What Can Be Rewritten?
- Enabling Query Rewrite
- Join Compatibility Checks
- Common Joins
- PCT and Query Rewrite
- Query Rewrite using Multiple MVs
- Index Materialized Views

SQL Access Advisor

- DBMS_OLAP Advisory Procedures
- Workload Management and Sources
- Recommendations
- Workload Filters and Attribute Types
- Tuning of Manually Created Materialized Views

Fast-Refreshable Materialized Views
RECOMMEND_MVIEW_STRATEGY procedure

Data Warehousing System Management

Statistics Collection

Resumable Sessions

Backup and Recovery

Table Compression

Security