



Exploring Oracle Database Architecture

1. Introducing Oracle Database
2. Relation Database Models
3. Oracle SQL and PL/SQL
4. Oracle Database Server Architecture
5. Connecting to Oracle Databases
6. Oracle Database Tools
7. Oracle-Supplied User Accounts
8. Querying the Oracle Data Dictionary

Managing Database Instances

1. Initialization Parameter Files
2. Starting Up Oracle Databases
3. Shutting Down Oracle Databases
4. Opening and Closing PDBs
5. Working with the Automatic Diagnostic Repository (ADR)
6. Querying Dynamic Performance Views

Creating PDBs

1. Methods and Tools to Create PDBs
2. Creating PDBs from Seed with SQL*Plus
3. Cloning PDBs with SQL*Plus
4. Unplugging and Pluggin In PDBs with SQL*Plus
5. Dropping PDBs with SQL*Plus

Configuring the Oracle Network Environment

1. Oracle Net Services
2. How Listeners Work
3. Configuring Listeners for Dynamic Service Registration
4. Configuring Listeners for Static Service Registration
5. Configuring Local Naming for Connections
6. Testing Oracle Net Connectivity with tnsping



7. Configuring Communication Between Databases
8. Dedicated Versus Shared Server Configurations

Administering User Security

1. Creating Users
2. Granting Privileges
3. Creating and Granting Roles
4. Revoking Privileges and Roles
5. Creating and Assigning Profiles
6. Authenticating Users
7. Assigning Quotas to Users
8. Applying the Principal of Least Privilege

Creating and Managing Tablespaces

1. How Table Data is Stored
2. Creating Tablespaces in SQL*Plus
3. Altering and Dropping Tablespaces in SQL*Plus
4. Viewing Tablespace Information in SQL*Plus
5. Implementing Oracle Managed Files
6. Moving and Renaming Online Data Files in SQL*Plus

Managing Storage Space

1. Oracle Database Space Management Features
2. Block Space Management
3. Row Chaining and Migration
4. Free Space Management Within Segments
5. Types of Segments
6. Allocating Extents
7. Understanding Deferred Segment Creation
8. Space-Saving Features



Managing UNDO Data

1. Undo Data: Overview
2. Transactions and Undo Data
3. Storing Undo Information
4. Comparing Undo Data and Redo Data
5. Managing Undo
6. Local Undo Mode Versus Shared Undo Mode
7. Configuring Undo Retention
8. Categories of Undo

Moving Data

1. Moving Data: General Architecture
2. Oracle Data Pump: Overview
3. Oracle Data Pump: Benefits
4. Data Pump Export and Import Clients
5. Data Pump Utility: Interfaces and Modes
6. Data Pump Import: Transformations
7. SQL*Loader Overview
8. Loading Methods

Backup and Recovery Concepts

1. DBA Responsibilities
2. Categories of Failure
3. Understanding Instance Recovery
4. Understanding Types of Backups
5. Comparing Complete and Incomplete Recovery
6. Oracle Data Protection Solutions
7. Flashback Technology

Monitoring and Tuning Database Performance

1. Managing Performance Activities
2. Performance Planning Considerations



3. Database Maintenance
4. Automatic Workload Repository (AWR)
5. Automatic Database Diagnostic Monitor
6. Performance Monitoring
7. Performance Tuning Methodology
8. Database Server Statistics and Metrics

SQL Tuning

1. SQL Tuning Process
2. Oracle Optimizer
3. Optimizer Statistics
4. SQL Plan Directives
5. Adaptive Execution Plans
6. SQL Tuning Advisor
7. SQL Access Advisor
8. SQL Performance Analyzer

Oracle Database Resource Manager

1. Oracle Database Resource Manager: Overview
2. Resource Manager Elements
3. Using Resource Manager to Allocate Resources
4. Creating a Simple Resource Plan
5. Creating a Complex Resource Plan
6. Using the Active Session Pool Feature
7. Limiting CPU Utilization at the Database Level
8. Limiting CPU Utilization at the Server Level

Enterprise Manager Cloud Control

1. Controlling the Enterprise Manager Cloud Control Framework
2. Starting the Enterprise Manager Cloud Control Framework
3. Stopping the Enterprise Manager Cloud Control Framework