This training textbook considers advanced features for Oracle 12c database administrators. Like any major software platform, the management of an Oracle database in a production environment can present challenges. Responding to those challenges requires more than just a basic understanding of database administration.

The primary target audiences for this textbook are:
- Database administrators
- Storage administrators
- System administrators
- Implementation specialists
- Data center support engineers

The entire Oracle database administrator curriculum, including this textbook that you are now reading, has these prerequisites from the Sideris Textbook Series For Oracle Database Developers. Equivalent experience is also acceptable.

- ORACLE DATABASE 12C: SQL FUNDAMENTALS (LEVELS I & II)
- ORACLE DATABASE 12C: PL/SQL FUNDAMENTALS (LEVELS I & II)

With regard to this text and its position within the Sideris Textbook Series For Oracle Administrators these are the required prerequisites, or equivalent experience:
- ORACLE DATABASE 12C: INSTALL & UPGRADE WORKSHOP
- ORACLE DATABASE 12C: ARCHITECTURE & INTERNALS
- ORACLE DATABASE 12C: ADMINISTRATION WORKSHOP

This textbook considers subjects helpful for certification as an Oracle Database 12c Administrator Certified Professional (OCP) for "Exam: 1Z0-063: Oracle Database 12c: Advanced Administration".

Volumes: 2
Pages: 906
Hands-on Workshops: 13
Exercises: 109

Readers may next wish to proceed onto these textbooks from this textbook series:
- ORACLE DATABASE 12C: BACKUP & RECOVERY WORKSHOP
- ORACLE DATABASE 12C: RESOURCE MANAGER & SCHEDULER
- ORACLE DATABASE 12C: MANAGE THE MULTITENANT ARCHITECTURE
The objectives for this course are as follows:

- Within this textbook we will explore these topics:
- Setting metric and alert thresholds for proactive database monitoring by the server alert framework.
- Globalization features within the database to support applications in multiple languages, currencies, time zones and countries.
- Database connection and session options that support thousands of concurrent users, including a shared servers configuration.
- Automatic database management, monitoring and tuning facilities. Included are automatic management of storage space and memory resources within the database and the role of the Segment Advisor and Memory Advisors.
- Automatic resumption of database operations even in the face of storage space allocation failures and errors.
- Protecting data-at-rest in the database using the advanced data security feature Transparent Data Encryption, as well as a solid overview of underlying encryption technologies, protocols and algorithms.
- Protecting data en route with Oracle Net Services encryption.
- An introduction to advanced space management topics, including custom space management attributes, resumable space allocation and other subjects.
- Advanced compression techniques for tables and indexes.
- Columnar vs. row-oriented database storage and the use of hybrid columnar compression.
- Heat map tracking of segment access to measure hot, warm and cold areas of the database that could be targeted for optimization.
- ILM data management and support for that framework with available features of the Oracle database.
- Automatic data optimization and policies that automatically implement the ILM concepts of row-level compression tiering, segment-level compression tiering and segment-level storage tiering.
- Implementing custom ILM storage management policies.
- In-memory storage of database objects, including big table caching, full database caching and in-memory column stores.
- Archiving inactive data inside the database while not degrading performance while limiting added storage costs.
- Introduce temporal validity into a table and perform flashback query operations using temporal validity criteria.
- Data redaction that allows data privacy policies to be dynamically enforced during queries.
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