



BUILDING TRAINING SOLUTIONS
FOR THE IT WORLD

Oracle Database 11g Administration Level 1

Days: 5
Format: Instructor-Led
Certification Exams: 1Z0-047
Certification Track: None

Recommended Course Sequence

Knowledge of prerequisites
noted below.

*Course content is subject to change
without notice.*

Course Description:

The overall objective of this course is to allow the student to gain the skills necessary for day-to-day administration of an Oracle database. This course is the starting point for Oracle database administrators and also sets the foundation for advanced administrator training and certification

Target Student:

The primary target audience for this course is Oracle database administrators. Oracle web server and application server administrators, as well as others who must manage an embedded repository database using Oracle database technology will also find this information useful. This course is also recommended for technical consultants, support engineers, project managers and other technical management and support personnel.

Prerequisites:

The following courses are mandatory prerequisites for this course:

- ORA11g001, Oracle Database 11G: SQL Fundamentals Complete Library
- ORA11g101, Oracle Database 11G: Program with PL/SQL Complete Library

Certification Track:

This course along with its prerequisites covers information necessary to complete the certification test

- EXAM #1Z1-052 ORACLE DATABASE 11G: ADMINISTRATION I.

At Course Completion:

Specific subject areas to be explored and objectives to be reached are:

- Software installation and the creation of new databases.
- An in-depth exploration of the database architecture, including memory, process and data structures, and the management of those structures.
- Management of database files.
- Specialized facilities intended to maximize performance of enterprise-scale transactional applications, such as the shared SQL and PL/SQL cache, the result cache, the database buffer cache, and other similar components.
- Management of security policies and procedures, including administration of user accounts, roles, privileges and profiles.
- Utilization of advanced self-tuning and self-management capabilities, including the use of Oracle-Managed Files, database Advisors and other components of the Management Framework.
- Performance monitoring, problem troubleshooting, and resolving lock and conflict issues.
- Using the Oracle Enterprise Manager and SQL interfaces for administration tasks.
- Control over database support services, including the Database Control, Oracle Net and others.
- A primer on backup and recovery structures and strategies.
- Operating system-specific considerations for various platforms, especially Linux and MS Windows Server.

Oracle Database 11g Administration Level 1

Course Outline

Lesson 1: Enterprise Edition Installation
<ul style="list-style-type: none">■ Identify system requirements■ The optimal flexible architecture (OFA)■ Oracle base■ Oracle home■ Configure the installation environment■ Enterprise edition installation■ DBCA
Lesson 2: The Administrator Interface
<ul style="list-style-type: none">■ Enterprise manager tour■ Using EM SQL worksheet■ Duties of a database administrator■ Exploring the oracle database architecture: general
Lesson 3: Exploring The Oracle Database Architecture: Instance Memory
<ul style="list-style-type: none">■ What is an oracle database instance?■ More about the system global area (SGA)■ About the PGA■ Managing memory
Lesson 4: Exploring The Oracle Database Architecture: Instance Processes
<ul style="list-style-type: none">■ Instance background processes■ SQL execution processes
Lesson 5: Creating An Oracle Database
<ul style="list-style-type: none">■ Create a new database■ Configure an existing database■ Drop a database■ Manage DBCA templates■ Manually create a database
Lesson 6: Managing The Database Instance
<ul style="list-style-type: none">■ Configuring a Linux environment■ Starting & stopping database control■ Starting & stopping the database listener■ Starting & stopping the database instance■ More about the database files
Lesson 7: Manage Database Storage Structures: Tablespaces
<ul style="list-style-type: none">■ About Tablespaces■ Tablespaces management■ Drop Tablespaces■ Alter Tablespaces
Lesson 8: Manage Database Storage Structures: Advanced Tablespaces
<ul style="list-style-type: none">■ More about temporary Tablespaces■ About temporary Tablespaces groups■ More about permanent Tablespaces■ More about Bigfile Tablespaces■ More about the Sysaux Tablespaces

Oracle Database 11g Administration Level 1

Lesson 9: Manage Database Storage Structures
<ul style="list-style-type: none">■ Data files & temp files■ Managing data files■ Managing temp files■ Enable oracle-managed files (OMF)
Lesson 10: Managing Undo Data
<ul style="list-style-type: none">■ About undo space management■ Configure automatic undo management■ Undo management■ Undo Tablespaces■ Undo retention■ Guarantee undo retention■ Monitor undo space■ Use the undo advisor
Lesson 11: Network Environment: Oracle Shared Servers
<ul style="list-style-type: none">■ Shared servers architecture■ Configure shared servers■ Monitor shared servers■ V\$shared server■ V\$shared server monitor■ V\$session■ V\$circuit■ V\$dispatcher & V\$dispatcher config■ V\$queue
Lesson 12: Security: Implementing Database Security
<ul style="list-style-type: none">■ Database system privileges■ Database object privileges■ Administrator auditing of database activity■ Enhanced default security settings
Lesson 13: Security: Administering User Security
<ul style="list-style-type: none">■ Create & manage database accounts■ Grant & revoke database privileges■ Resource limits via profiles■ Alter profile■ Drop profile■ Password management via profiles■ About role-based security■ With admin option■ Alter user - default role■ Set role■ Enhanced default security settings
Lesson 14: Moving Data: SQL Loader
<ul style="list-style-type: none">■ Loader concepts■ Control file options■ Load methods■ Using the EM interface

Oracle Database 11g Administration Level 1

Lesson 15: Moving Data: Export & Import

- Manage directory objects
- About the data pump architecture
- Data pump export
- Data pump import
- Data pump data dictionary views
- Using the EM interface

Lesson 16: Database Maintenance & Performance Management

- The management & advisory framework
- Manage the automatic workload repository
- Automatic database diagnostic monitor
- Use metrics & alert thresholds
- Automatic maintenance tasks

Lesson 17: Managing Concurrency & Locks

- About latches & locks
- Manage & monitor latches
- Manage & monitor locks
- V\$lock
- V\$locked object
- V\$session
- V\$session wait
- DBA blockers & DBA waiters
- DBA DML locks & DBA DLL locks
- DML locks

Lesson 18: Backup & Recovery Concepts & Configuration

- About database backup & recovery structures
- Managing redo data
- Managing archival data
- Automatic crash recovery
- Creating a basic backup strategy