Oracle 11g Administrator certification cycle

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SII-88 **15 Days (105 Hours)**

Description

This complete cycle will provide you with the knowledge necessary to practice the profession of Oracle 11g DBA in an optimal manner. It first details the architecture of the DBMS and the administration techniques. It then delves deeper into backups/restorations and tuning to teach you how to establish effective backup strategies in order to respond to crisis situations and improve the performance of your databases.

Who is this training for ?

For whom

Oracle database administrators, application administrators and database consultants.

Prerequisites

Aucune

Training objectives

- Understand the architecture of an Oracle 11g DBMS
- Know how to install and configure the DBMS
- Administer and manage the security of a database
- Master the backup and restoration management tools
- Know the tools for measuring, diagnosing and optimizing the SDBG
- Know how to analyze and optimize the performance of the Oracle 11g DBMS

Training program

Administration

- Oracle 11g architecture.
- The files constituting the database.
- The storage structure.
- The memory areas.
- Background processes.
- Transaction management.
- Software installation.
- Prerequisites depending on the system.
- Unix installation tasks.
- The OFA architecture.
- Using Oracle Universal Installer (OUI).
- Enterprise Manager Configuration Assistant.
- The architecture of ASM.
- Configuration and control.
- Instance management.
- Identification control methods.
- Starting an instance.
- Stopping.
- Dynamic views.
- Data dictionary .
- Trace files and alert files.
- Configuring Oracle Net Services.
- Database management.
- The configuration wizard.
- Management of the control file.
- Management of logging files.
- Size the redo log buffer and redo log files.
- Database storage management.
- Creation of a permanent, temporary and undo tablespace.
- Management of tablespaces.
- The structure of a block.
- Storage of BLOB or CLOB type data.
- Table storage statistics.
- The High Water Mark.
- Reorganizing storage and unused space.
- Manage undo data.
- Undo segments.
- The retention period for cancellation information.
- Flashback Database.
- Flashback Query, Version Query and Transaction Query.
- User management and security.
- Creating a user.
- Privileges.
- Roles.
- Profiles.
- Jobs practices Modification of the database settings.
- Create the SPFILE file from a PFILE file.
- Configuration of SQL*Net.
- Multiplex the control file, view its contents.
- Modify the group size of the logging files.
- Put the database in ARCHIVELOG mode.

Sauvegardes et restaurations

- Management and backup with RMAN.
- Configuration and commands.
- Automatic backup of the control file.
- Execution in parallel backup sets.
- Compressed and encrypted backups.
- Catalog creation and management.
- Using stored scripts.
- Duplicate a database with RMAN.
- Recovering the database.
- Rebooting with missing files.
- Losing control files.
- Recovering read-only tablespaces.
- The RESTORE and RECOVER commands.
- Recovering with the administration console.
- Simplified recovery via RESETLOGS.
- Flashback Database.
- Configure and monitor Flashback Database.
- Back up the fast recovery area.
- Perform a flashback on deleted tables.
- Manage Flashback Data Archives.
- Moving data.
- Using Data Pump Export and Import.
- Use external tables to move data.
- Transport a tablespace.
- Exercise: Defining the location of backups with RMAN and setting up the backup strategy retention of backups.
- Examples of full and incremental backups.
- Light clone a database.
- Back up the control file and restore it.
- Use FLASHBACK.

Tuning

- The approach and tools.
- The optimization approach.
- Possible gains.
- Measuring tools.
- OEM.
- Dynamic performance views.
- Alert and user trace file.
- Wait events.
- Manage the repository, AWR snapshots, and execution plans.
- Identify object access.
- SQL Plan Management.
- Use SQL Profile to optimize queries.
- Management of changes.
- Types of possible changes.
- SQL Performance Analyzer (SPA).
- Use of DB Replay.
- Defining filters.
- Replay function.
- Adaptive thresholds and reference measurements.
- Set thresholds 'adaptive alerts.
- Configure normalization measures.
- Diagnosis and adjustments.
- Identify problems related to the SHARED POOL area, buffer cache, PGA memory, at I/O.
- Architectural elements.
- Understand the activity of the library cache area.
- Sizing the buffer cache .
- Automatic memory management.
- Features.
- SGA.
- Manage space in segments.
- BIGFILE and SMALLFILE tablespaces.
- Optimize I/O.
- Stripping and Mirroring.
- RAID.
- Exercise: Query dynamic performance views to display Wait events.
- Change AWR snapshot collection interval.
- Generate reports with SQL* More.
- Use SQL Plan Management.
- Optimize the library cache.
- Reorganize database objects.