

<b>ORACLE DATABASE ADMINSTATION (11g and 12c)</b> <b>[Core DBA]</b>
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<b>FUNDAMENTALS --1</b>
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<b>OVERVIEW OF ORACLE</b>
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	Roles and Responsibilities of DBA
	Basics of SQL Commands
	Basics of Linux Commands

<b>ARCHITECTURE OF ORACLE</b>
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	Importance of Oracle Database.
	Importance of Oracle Instance.
	Importance of Memory Structures.
	Functionalities of Background processes.(pmon,smon,ckpt,dbwr,lgwr..etc).

<b>INSTALLATION</b>
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	<b>Pre - installation checks.</b>
	User/Group Creation
	rpm's installation.
	setting up kernel parameters.
	downloading softwares
	<b>Installation.</b>
	Installing oracle software.
	<b>Post - installation steps.</b>
	executing root.sh/orainst.sh (importance of the scripts).
	Setting up the environment variables.

<b>DATABASE CREATION</b>
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	Database Creation Using DBCA
	Difference between Enterprise edition/standard edition and warehouse (custom ) database creation.
	importance of oratab entry in database creation.
	Setting up the environment variables using oratab.

<b>STARTUP AND SHUTDOWN</b>
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	shutdown normal.
	shutdown transactional.

shutdown immediate.
shuddown abort.
startup nomount.
startup mount.
startup open.
<b>ORACLE FILE SYSTEM</b>
Important files in oracle binaries.
Importance of pfile/spfile.
Creating spfile from pfile and pfile from spfile.
Creating password file.
<b>TABLESPACE MANAGEMENT</b>
System Tablespace.
Sysaux Tablespace.
Users/Custom Tablespace.
Undo Tablespace.
Temp Tablespace.
Creation/Spacemanagement/Dropping/extent management will be included in the tablespace management.
Day to Day issues in Tablespace management.
Explanations with ORA erros and solutions related to the tablespace.
<b>FILE MANAGEMENT</b>
<b>Redo Log file Management.</b>
importance of redo logfiles
creating redo log groups
creating redo log members
Multiplexing redolog members
Dropping Redo log groups.
Different Status of Redo log groups.
Enabling Database Archive log mode and its importance.
<b>Datafile Management.</b>
Moving Datafiles from one mount point to another mount to reduce I/O on file system.
Renaming Datafiles.
Resizing Datafiles.

	<b>Controlfile Management.</b>
	Multiplexing Controlfiles for the high availability.
	Generating the controlfile trace.
	Understanding Controlfile structure.
	<b>Scenarios on Controlfile version mismatch with ORA erros and solutions.</b>
<b>USERS AND ROLES MANAGEMENT</b>	
	Creating users.
	Creating Roles
	Assingning privileges to users and roles.
	assigning Tablespace to users.
	<b>Real time issues and solutions of User Management.</b>
<b>ORACLE NETWORKING</b>	
	What is Listener ?
	Oracle Local Naming Methods.
	Creation of Listener/Tnsnames using netca.
	<b>Real Time Issues and Solutions in oracle networking.</b>
<b>FUNDAMENTALS --2</b>	
<b>BACKUP &amp; RECOVERY</b>	
	<b>PHYSICAL BACKUP</b>
	<b>Cold Backup.</b>
	Cold backup using manual method and tar backup method.
	<b>Hot Backup.</b>
	Hot Backup using begin backup method.
	Hot Backup Using RMAN Method.

<b>RMAN</b>
Rman Backup with Non Catalog.
Rman Backup With Catalog.
Catalog Creation.
Normal Hot backup.
Hot Backup with Compression method.
RMAN parameters.
Automating the Backups.
Cron jobs.
<b>Real time issues and solutions of using RMAN</b>
<b>LOGICAL BACKUP using expdp/impdp</b>
Remapping the schemas from one table to another table
Database full export and importing.
Table level export.
Schema level export.
<b>RESTORE/CLONING</b>
Restoring the backups and creating duplicate database using cold backup.
Restoring the backups and creating duplicate database using hot backup.
Recovery using rman.(recovering the missing transactions by applying archives).
SCN based recovery.
Time Based Recovery.
InComplete Recovery.
Recovering a datafile.
<b>FLASH BACK OF DATABASE</b>
Creating Restore point and restoring the database to the old restore point.
<b>Realtime scenarions on restore/recovery with ora errors and solutions.</b>

<b>PATCHING</b>	
	What is Ora inventory how it works.
	Pre-patch Analysis. (analysing the patches based on environment).
	Bug fixing Patch.
	CPU Patching.
	Upgradation Patches.
	<b>Issues and Solutions while applying patches.</b>

<b>Basics of Performance Tuning</b>	
	Database locks.
	Generating and gather AWR reports.
	Using Explain Plan.
	Generating sqlt report for analysing the long running requests.
	Identifying the top resource consuming events using top and other methods and troubleshooting the same.
	Indexing.
	Basics of Partitioning.
	Gather Schema stats.

<b>Concepts of High Availability.</b>	
	<b>Introduction to ASM.</b>
	Normal redundancy in asm
	External redundancy in asm
	High redundancy in asm
	<b>Introduction to DATAGUARD</b>
	Dataguard Performance modes like : maximum protection/availability and performance modes.
	Dataguard Background processes.
	<b>Introduction to RAC.(Real Application Cluster).</b>
	Cachefusion
	Split brain mechanism.
	Voting disks.
	<b>Introduction to Database Upgradation.</b>
	Preparing for the upgrade
	Upgradation process.
	Post up-gradation process.

<b>Additional Topics</b>	
	<b>Working With Oracle Support.</b>
	Raising Service request with oracle.
	Downloading the oracle products.
	<b>Working with Ticketing Systems. --</b>
	Phaseware tracker
	Hp Tool Center.
	Remedy Ticketing system.
	<b>Day to Day Activities of DBA's In Real time.</b>
	Client Architectures.
	Code migrations.
	File movements.
	Data extractions.
	<b>Discussions on Most Common issues and solutions like:</b>
	<b>ORA-12154: TNS:could not resolve the connect identifier specified (#1)</b>
	<b>ORA-00600: internal error code, arguments: [%s], [%s],[%s], [%s], [%s]</b>
	<b>ORA-03113: end-of-file on communication channel</b>
	<b>ORA-01000: maximum open cursors exceeded</b>
	<b>CASE STUDIES - Real Time Case Studies from the DBA view point</b>
	<b>1. Troubleshooting ORA-00321: log 1 of thread 1, cannot update log file header (ERROR WHILE OPENING DATABASE WITH RESETLOGS.).</b>
	<b>2. RMAN CATALOG REGISTRATION FAILS WITH THE ERROR --- RMAN-03009: failure of full re-sync command on default channel</b>
	<b>3. Recovering from Loss of Controlfile in database.</b>
	<b>4. RECOVERING THE DATABASE IF SYSTEM DATAFILE IS LOST OR CORRUPTED</b>
	<b>5. Recovering Undo tablespace with No Backup.</b>
	<b>11g and 12c New Features</b>
	Discussion of 11g Features
	Discussion of 12c Features
	<b>Interview Assistance</b>
	Preparation of Resume as per students requirements.
	Discussion of Interview Questions
	Tips for cracking the certification if student is taking any certification
	Assistance to get interviews