**Creating New Database**

**Overview**

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| **Trigger:** | Creating a new Empty Database | | |
| **Special Permissions:** | SYS Admin | **Responsible Team:** | DB Team |
| **Config. Item:** | Database | **KB Reference:** | KB# |

**Instructions**

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| **Step #** | **Information** |
| 1. | Ensure to have all the pre-requisites before proceeding with DB creation. E.g. Memory space and Storage capacity to contain data files etc. |
| 2. | Create a new Pfile in ‘$ORACLE\_HOME/dbs’ or copy the existing one from other DB (with same Oracle version) and make changes as needed. |
| 3. | Create necessary directories in their specified locations, the directories are:  ADUMP – ‘$ORACLE\_HOME/admin/orcl/adump’  REDO LOGS – ‘/logs/redolog1/orcl’, ‘/logs/redolog2/orcl’, ‘/logs/redolog3/orcl’  CONTROL FILES – ‘/control/ctlfile1/orcl’, ‘/control/ctlfile2/orcl’, ‘/control/ctlfile3/orcl’  DATABASE FILES – ‘/oradata/orcl’ |
| 4. | Create password files  orapwd file=orapw<DB\_name> password=pwd entries=5 |
| 5. | Connect to instance and create SPfile using command – ‘CREATE SPFILE from PFILE ;’ |
| 6. | Bring Database to nomount state – ‘STRATUP NOMOUNT;’ |
| 7. | Create Database using the below command after making required modifications:  CREATE DATABASE DB\_NAME  USER SYS IDENTIFIED BY PWD  USER SYSTEM IDENTIFIED BY PWD  LOGFILE GROUP 1 ('/logs/redolog1/orcl/redo01.log','/logs/redolog2/orcl/redo10.log') SIZE 50M,  GROUP 2 ('/logs/redolog2/orcl/redo02.log','/logs/redolog3/orcl/redo20.log') SIZE 50M,  GROUP 3 ('/logs/redolog3/orcl/redo03.log','/logs/redolog1/orcl/redo30.log') SIZE 50M  MAXLOGFILES 5  MAXLOGMEMBERS 5  MAXLOGHISTORY 292  MAXDATAFILES 100  MAXINSTANCES 1  CHARACTER SET AL32UTF8  DATAFILE '/oradata/orcl/system01.dbf' SIZE 1024M  SYSAUX DATAFILE '/oradata/orcl/sysaux01.dbf' SIZE 2048M  DEFAULT TABLESPACE users DATAFILE '/oradata/orcl/users01.dbf' size 2048m  DEFAULT TEMPORARY TABLESPACE temp01 TEMPFILE '/oradata/orcl/temp01.dbf' SIZE 2048m  UNDO TABLESPACE undotbs1 DATAFILE '/oradata/orcl/undotbs01.dbf' SIZE 1024M; |
| 8. | If you want to create this Database with similar specifications as of other DB, need to find certain parameters which are there in CREATE DATABASE use below queries;  Select 'MAXDATAFILES ' || records\_total from v$controlfile\_record\_section where type = 'DATAFILE';  -- MAXLOGHISTORY  Select 'MAXLOGHISTORY ' || records\_total from v$controlfile\_record\_section where type = 'LOG HISTORY';  -- MAXINSTANCES  Select 'MAXINSTANCES ' || records\_total from v$controlfile\_record\_section where type = 'DATABASE';  -- MAXLOGFILES  Select ' MAXLOGFILES ' || records\_total from v$controlfile\_record\_section where type = 'REDO LOG';  -- MAXLOGMEMBERS  Select 'MAXLOGMEMBERS ' || dimlm from x$kccdi;   * To check table space details:   SELECT tablespace\_name, SUM(bytes) / (1024 \* 1024) "SIZE(MB)", file\_name FROM dba\_data\_files GROUP BY tablespace\_name, file\_name;   * To find redo log group details:   SELECT a.GROUP#,a.THREAD#,a.SEQUENCE#,a.ARCHIVED,a.STATUS,b.MEMBER AS REDOLOG\_FILE\_NAME,(a.BYTES/1024/1024) AS SIZE\_MB FROM v$log a JOIN v$logfile b ON a.Group#=b.Group# ORDER BY a.GROUP#;   * To Check Which Character set being used, take backup of control file in other DB and check inside that file.   alter database backup controlfile to trace as '/backup/export/control\_h141pphp.txt'; |
| 9. | After Database creation, run below scripts as ‘’SYS’’ user  @$ORACLE\_HOME/rdbms/admin/catalog.sql;  @$ORACLE\_HOME/rdbms/admin/catproc.sql;  @$ORACLE\_HOME/sqlplus/admin/pupbld.sql;   * Optional scripts to be executed:   @?/javavm/install/initjvm.sql; - install java components  @?/xdk/admin/initxml.sql; - install XML components  @?/xdk/admin/xmlja.sql; - install xml java components  @?/rdbms/admin/catjava.sql; -install java components  @?/rdbms/admin/catexf.sql;  SQL> spool text\_install.txt  SQL> @?/ctx/admin/catctx.sql CTXSYS SYSAUX TEMP NOLOCK   * Execute the below command for manually installing ORACLE DATA MINING as ‘’SYS’’ user   run $ORACLE\_HOME/rdbms/admin/dminst.sql SYSAUX TEMP  run $ORACLE\_HOME/rdbms/admin/odmpatch.sql  run $ORACLE\_HOME/rdbms/admin/utlrp.sql   * Execute the below command for installing Oracle XMLDB Components as ‘’SYS’’ user   @?/rdbms/admin/catqm xml\_password xmldb\_tablespace temp\_tablespace   * Check whether the components are installed in the DB using   select comp\_name "Component" from dba\_registry; |
| 10. | Verify the DB by bouncing once.  SHUT IMMEDIATE,  STARTUP; |
| 11. | Add TNS entries in ‘$ORACLE\_HOME/network/admin/tnsnames.ora ‘  orcl.example.com =  (DESCRIPTION =  (ADDRESS\_LIST =  (ADDRESS = (PROTOCOL = TCP) (HOST = myserver.example.com) (PORT = 1521))  )  (CONNECT\_DATA =  (SERVICE\_NAME = orcl)  )  )   * Add listener entries in ‘$ORACLE\_HOME/network/admin/listener.ora’   LISTENER =  (DESCRIPTION\_LIST =  (DESCRIPTION =  (ADDRESS = (PROTOCOL = IPC) (KEY = EXTPROC1))  (ADDRESS = (PROTOCOL = TCP) (HOST = myserver.example.com) (PORT = 1521))  )  )  SID\_LIST\_LISTENER =  (SID\_LIST =  (SID\_DESC =  (GLOBAL\_DBNAME = orcl.example.com)  (ORACLE\_HOME = /u01/app/oracle/product/11.2.0.4/db\_1)  (SID\_NAME = orcl)  )  ) |

**Document Control**

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| Revision History | | | | |
| Version | **Date** | **Author** | **Title & Company** | **Description** |
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| Document Approval | | | | |
| Version | **Name** | **Title & Company** | **Date** | **Signature** |
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