

安装完Oracle 12c数据库软件后，就可以进行数据库的创建，可以使用SQL语句手工建库，也可以使用DBCA工具进行建库，上篇讲解了如何利用DBCA进行数据库的创建，本篇则主要讲解通过Create Database语句进行数据库的创建。

## 创建数据库步骤

### 1 创建目录

```
[oracle@strong ~]$ mkdir -p /u01/app/oracle/admin/db01/adump
[oracle@strong ~]$ mkdir -p /u01/app/oracle/admin/db01/dpdump
[oracle@strong ~]$ mkdir -p /u01/app/oracle/admin/db01/pfile
[oracle@strong ~]$ mkdir -p /u01/app/oracle/cfgtoollogs/dbca/db01
[oracle@strong ~]$ mkdir -p /u01/app/oracle/fast_recovery_area/db01
[oracle@strong ~]$ mkdir -p /u01/app/oracle/oradata/db01
```

### 2 指定实例SID

```
[oracle@strong ~]$ export ORACLE_SID=db01
```

### 3 创建密码文件

```
[oracle@strong ~]$ orapwd file='/u01/app/oracle/product/12.1.0/dbhome_1/dbs/orapwddb01';
```

Enter password for SYS: (Ocp1234!)

### 4 创建文本初始化参数文件

```
[oracle@strong ~]$ vim initdb01.ora
```

```
db_name='db01'
memory_target=400M
control_files='/u01/app/oracle/oradata/db01/control01.ctl','/u01/app/oracle/oradata/db01/control02.ctl'
```

### 5 连接实例

```
[oracle@strong ~]$ sqlplus /nolog
```

SQL\*Plus: Release 12.1.0.2.0 Production on Sat Jun 1 20:14:59 2019

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```
SQL> conn / as sysdba
Connected to an idle instance.
```

## 6 创建服务器参数文件

```
SQL> create spfile from pfile='/home/oracle/initdb01.ora';
```

File created.

## 7 启动实例

```
SQL> startup nomount;
ORACLE instance started.
```

```
Total System Global Area 419430400 bytes
Fixed Size          2925120 bytes
Variable Size      281021888 bytes
Database Buffers   130023424 bytes
Redo Buffers       5459968 bytes
```

## 8 创建建库脚本

```
[oracle@strong ~]$ cat db01.sql
CREATE DATABASE db01
  USER SYS IDENTIFIED BY "Ocp1234!"
  USER SYSTEM IDENTIFIED BY "Ocp1234!"
  LOGFILE GROUP 1 ('/u01/app/oracle/oradata/db01/redo01.log') SIZE 100M BLOCKSIZE 512,
    GROUP 2 ('/u01/app/oracle/oradata/db01/redo02.log') SIZE 100M BLOCKSIZE 512,
    GROUP 3 ('/u01/app/oracle/oradata/db01/redo03.log') SIZE 100M BLOCKSIZE 512
  MAXLOGHISTORY 1
  MAXLOGFILES 16
  MAXLOGMEMBERS 3
  MAXDATAFILES 1024
  CHARACTER SET AL32UTF8
  NATIONAL CHARACTER SET AL16UTF16
  EXTENT MANAGEMENT LOCAL
  DATAFILE '/u01/app/oracle/oradata/db01/system01.dbf'
    SIZE 700M REUSE AUTOEXTEND ON NEXT 10240K MAXSIZE UNLIMITED
  SYSAUX DATAFILE '/u01/app/oracle/oradata/db01/sysaux01.dbf'
    SIZE 550M REUSE AUTOEXTEND ON NEXT 10240K MAXSIZE UNLIMITED
  DEFAULT TABLESPACE users
    DATAFILE '/u01/app/oracle/oradata/db01/users01.dbf'
```

```
SIZE 500M REUSE AUTOEXTEND ON MAXSIZE UNLIMITED
DEFAULT TEMPORARY TABLESPACE tempts1
  TEMPFILE '/u01/app/oracle/oradata/db01/temp01.dbf'
  SIZE 20M REUSE AUTOEXTEND ON NEXT 640K MAXSIZE UNLIMITED
UNDO TABLESPACE undotbs1
  DATAFILE '/u01/app/oracle/oradata/db01/undotbs01.dbf'
  SIZE 200M REUSE AUTOEXTEND ON NEXT 5120K MAXSIZE UNLIMITED
USER_DATA TABLESPACE usertbs
  DATAFILE '/u01/app/oracle/oradata/db01/usertbs01.dbf'
  SIZE 200M REUSE AUTOEXTEND ON MAXSIZE UNLIMITED;
```

## 9 执行创建脚本语句

```
SQL> @db01.sql
```

Database created.

## 10 查看数据库状态

```
SQL> select instance_name ,status from v$instance;
```

```
INSTANCE_NAME  STATUS
-----
db01           OPEN
```

## 11 创建数据字典视图

### 11.1 脚本说明

Script	Description
catalog.sql	Creates the views of the data dictionary tables, the dynamic performance views, and public synonyms for many of the views. Grants PUBLIC access to the synonyms.
catproc.sql	Runs all scripts required for or used with PL/SQL.
utlrp.sql	Recompiles all PL/SQL modules that are in an invalid state, including packages, procedures, and types.
pupbld.sql	Required for SQL*Plus. Enables SQL*Plus to disable commands by user.

### 11.2 以sysdba权限执行

```
SQL> @?/rdbms/admin/catalog.sql
```

```
SQL> @?/rdbms/admin/catproc.sql
```

```
SQL> @?/rdbms/admin/utlrp.sql
```

### 11.3 以SYSTEM用户执行

```
SQL> @?/sqlplus/admin/pupbld.sql
```

## 12 完善配置

更新oratab文件，向其添加下面一行内容：

```
[oracle@strong ~]$ vim /etc/oratab  
db01:/u01/app/oracle/product/12.1.0/dbhome_1:N
```

至此，使用Create Database语句手工建库完成。