COMPTE RENDU TP4 (Mémoire)

Elève : MEHDI SAOUDI

Groupe : GL3

1- Le script PL/SQL calculant le ratio R

```
DECLARE
        db_block_gets NUMBER(10,0);
        consistent_gets NUMBER(10,0);
        physical_read NUMBER(10,0);
        value_R NUMBER(10,3);
BEGIN

        select value into db_block_gets from v$sysstat where name in('db block gets');
        select value into consistent_gets from v$sysstat where name in('consistent gets');
        select value into physical_read from v$sysstat where name in('physical reads');

        value_R := 1-physical_read/(consistent_gets+db_block_gets);

        dbms_output.put_line ('Valeur est :' || value_R);
END;
```

```
Procedure PL/SQL terminee avec succes.

SQL> @/home/oracle/Desktop/Ratio.sql
Valeur est :,98

Procedure PL/SQL terminee avec succes.
```

2- Ratio d'optimisation du cache

```
SQL> select sum(pins) "Executions", sum(reloads) "Défaut de cache", sum(reloads)
 / (sum(pins) + sum(reloads))*100 "R" FROM v$librarycache;

Executions D??faut de cache          R
---------- ---------------- ----------
    240337              316 ,131309396
```

On a R >= 1% donc on augmente le SHARED_POOL_SIZE

```
SQL> alter system set shared_pool_size = 2 ;

Systeme modifie.
```

```
SQL> select sum(gets) "DC Gets", sum(getmisses) "DC cache get misses", sum(getmi
sses)/(sum(gets)+sum(getmisses))*100 "R" from v$rowcache;

   DC Gets DC cache get misses          R
---------- ------------------ ----------
    564851              16637 2,86110805
```

3-

```
SQL> select name, value from v$sysstat where name = 'redo log space requests';
```

PROGRAM GLOBAL AREA

4-

```
SQL> select ss.sid, ss.value, sn.name from v$sesstat ss, v$statname sn, v$sessio
n se where ss.statistic#=sn.statistic# and sn.name in ('session pga memory') and
 se.sid = ss.sid and type != 'BACKGROUND';

       SID      VALUE
---------- ----------
NAME
----------------------------------------------------------------
         1    7627252
session pga memory

        22    4153844
session pga memory

        24    1991156
session pga memory


       SID      VALUE
---------- ----------
NAME
----------------------------------------------------------------
        29    8068976
session pga memory

        30    2646516
session pga memory

        32    2318836
session pga memory
```

```
       SID      VALUE
---------- ----------
NAME
--------------------------------------------------
        39    2843124
session pga memory

        45    2449908
session pga memory

        47    1802856
session pga memory


       SID      VALUE
---------- ----------
NAME
--------------------------------------------------
        53    1204724
session pga memory

        56    4071280
session pga memory


11 ligne(s) selectionnee(s).
```

On décrit le sort_area_size, le hash_area_size le bitmap et le creat_bipmap

```
SQL> show parameter sort_area_size

NAME                                 TYPE        VALUE
------------------------------------ ----------- ------------------------------
sort_area_size                       integer     65536
SQL> show parameter hash_area_size

NAME                                 TYPE        VALUE
------------------------------------ ----------- ------------------------------
hash_area_size                       integer     131072
SQL> show parameter bitmap_merge_area_size;

NAME                                 TYPE        VALUE
------------------------------------ ----------- ------------------------------
bitmap_merge_area_size               integer     1048576
SQL> show parameter create_bitmap_area_size

NAME                                 TYPE        VALUE
------------------------------------ ----------- ------------------------------
create_bitmap_area_size              integer     8388608
```

5-

```
SQL> select name, value from v$sysstat where name in ('sorts (memory)','sorts(disk

NAME                                                                  VALUE
---------------------------------------------------------------- ----------
sorts (memory)                                                        37861
```

Process & Files

6- On décrit le DB_WRITER_PROCESS

```
SQL> show parameter DB_WRITER_PROCESSES;

NAME                                 TYPE        VALUE
------------------------------------ ----------- ------------------------------
db_writer_processes                  integer     1
```

7- Le LG_WRITER prend les blocs libérer par le DBWR en cas du TIMEOUT ou de CHECKPOINT

```
SQL> show parameter DB_WRITER_PROCESSES;

NAME                                 TYPE        VALUE
------------------------------------ ----------- ------------------------------
db_writer_processes                  integer     1
SQL> show parameter CHECKPOINT_PROCESS
SQL> show parameter CHECKPOINT

NAME                                 TYPE        VALUE
------------------------------------ ----------- ------------------------------
log_checkpoint_interval              integer     0
log_checkpoints_to_alert             boolean     FALSE
log_checkpoint_timeout               integer     1800
SQL> alter system set log_checkpoints_to_alert = true
  2  ;

Systeme modifie.

SQL> show parameter checkpoint

NAME                                 TYPE        VALUE
------------------------------------ ----------- ------------------------------
log_checkpoint_interval              integer     0
log_checkpoints_to_alert             boolean     TRUE
log_checkpoint_timeout               integer     1800
```

8-1-

```
[oracle@pc152 ~]$ env | grep ORACLE;
ORACLE_SID=orcl
ORACLE_BASE=/u01/app/oracle
ORACLE_HOME=/u01/app/oracle/product/11.2.0/dbhome_1
```

8-2-

```
SQL> select pid, pname, username from v$process;

       PID PNAME USERNAME
---------- ----- ---------------
         1
         2 PMON  oracle
         3 VKTM  oracle
         4 GEN0  oracle
         5 DIAG  oracle
         6 DBRM  oracle
         7 PSP0  oracle
         8 DIA0  oracle
         9 MMAN  oracle
        10 DBW0  oracle
        11 LGWR  oracle

       PID PNAME USERNAME
---------- ----- ---------------
        12 CKPT  oracle
        13 SMON  oracle
        14 RECO  oracle
        15 RBAL  oracle
        16 ASMB  oracle
        17 MMON  oracle
        18 MMNL  oracle
        19 D000  oracle
        20 S000  oracle
        21 MARK  oracle
        22 SMCO  oracle
```

8-3-

```
[oracle@pc152 ~]$ ipcs

------ Segment de mémoire partagé --------
clé       shmid      propriétaire perms      octets     nattch     états
0x00000000 65536      oracle    600        393216     2          dest
0x00000000 98305      oracle    600        393216     2          dest
0x00000000 131074     oracle    600        393216     2          dest
0x00000000 163843     oracle    600        393216     2          dest
0x00000000 196612     oracle    600        393216     2          dest
0x00000000 229381     oracle    600        393216     2          dest
0x00000000 262150     oracle    600        393216     2          dest
0x00000000 294919     oracle    600        393216     2          dest
0x00000000 327688     oracle    600        393216     2          dest
0xfa55c7d8 393225     oracle    660        4096       0
0x42e38fd0 458762     oracle    660        4096       0
0x00000000 524299     oracle    600        393216     2          dest
0x00000000 557068     oracle    600        393216     2          dest

------ Tableaux de sémaphores --------
clé       semid      propriétaire perms      nsems
0x496bed6c 98304      oracle    660        104
0x89a83438 229377     oracle    660        154

------ Queues de messages --------
clé       msqid      propriétaire perms      octets-utilisés messages
```

8-4-

```
SQL> select PADDR, NAME, DESCRIPTION FROM v$bgprocess;

PADDR    NAME  DESCRIPTION
-------- ----- ----------------------------------------------------------------
427B732C PMON  process cleanup
427B7E04 VKTM  Virtual Keeper of TiMe process
427B88DC GEN0  generic0
427B93B4 DIAG  diagnosibility process
427B9E8C DBRM  DataBase Resource Manager
00       VKRM  Virtual sKeduler for Resource Manager
00       RSMN  Remote Slave Monitor
00       PING  interconnect latency measurement
00       FMON  File Mapping Monitor Process
427BA964 PSP0  process spawner 0
00       ACMS  Atomic Controlfile to Memory Server

PADDR    NAME  DESCRIPTION
-------- ----- ----------------------------------------------------------------
00       DSKM  slave DiSKMon process
427BB43C DIA0  diagnosibility process 0
00       DIA1  diagnosibility process 1
00       DIA2  diagnosibility process 2
00       DIA3  diagnosibility process 3
00       DIA4  diagnosibility process 4
00       DIA5  diagnosibility process 5
00       DIA6  diagnosibility process 6
00       DIA7  diagnosibility process 7
00       DIA8  diagnosibility process 8
00       DIA9  diagnosibility process 9
```

Création d'une autre base de données

9-

```
[oracle@pc152 ~]$ orapwd file=sys password=oracle entries=5
```

10-

```
CREATE DATABASE U10
CONTROLFILE 'ORACLE_HOME/Mabase2/control01.ctl'
LOGFILE group 1 ('ORACLE_HOME/U10/log1a.rdo') size 150k,
        group 2 ('ORACLE_HOME/U10/log2a.rdo') size 150K
MAXLOGFILES 5
MAXDATAFILES 35
DATAFILE 'ORACLE_HOME/U10/System01.dbf'
MAXLOGMEMBERS 100
CHARACTER SET WE8ISO8859P1;
```

```
[oracle@pc152 ~]$ cd /home/oracle/Desktop
[oracle@pc152 Desktop]$ sqlplus sys/oracle @database.sql
```

11-

```
SQL> desc v$database;
 Nom                                       NULL ?   Type
 ----------------------------------------- -------- ----------------------------
 DBID                                                NUMBER
 NAME                                                VARCHAR2(9)
 CREATED                                             DATE
 RESETLOGS_CHANGE#                                   NUMBER
 RESETLOGS_TIME                                      DATE
 PRIOR_RESETLOGS_CHANGE#                             NUMBER
 PRIOR_RESETLOGS_TIME                                DATE
 LOG_MODE                                            VARCHAR2(12)
 CHECKPOINT_CHANGE#                                  NUMBER
 ARCHIVE_CHANGE#                                     NUMBER
 CONTROLFILE_TYPE                                    VARCHAR2(7)
 CONTROLFILE_CREATED                                 DATE
 CONTROLFILE_SEQUENCE#                               NUMBER
 CONTROLFILE_CHANGE#                                 NUMBER
 CONTROLFILE_TIME                                    DATE
 OPEN_RESETLOGS                                      VARCHAR2(11)
 VERSION_TIME                                        DATE
 OPEN_MODE                                           VARCHAR2(20)
```

```
SQL> desc v$thread;
 Nom                                       NULL ?   Type
 ----------------------------------------- -------- ----------------------------
 THREAD#                                             NUMBER
 STATUS                                              VARCHAR2(6)
 ENABLED                                             VARCHAR2(8)
 GROUPS                                              NUMBER
 INSTANCE                                            VARCHAR2(80)
 OPEN_TIME                                           DATE
 CURRENT_GROUP#                                      NUMBER
 SEQUENCE#                                           NUMBER
 CHECKPOINT_CHANGE#                                  NUMBER
 CHECKPOINT_TIME                                     DATE
 ENABLE_CHANGE#                                      NUMBER
 ENABLE_TIME                                         DATE
 DISABLE_CHANGE#                                     NUMBER
 DISABLE_TIME                                        DATE
 LAST_REDO_SEQUENCE#                                 NUMBER
 LAST_REDO_BLOCK                                     NUMBER
 LAST_REDO_CHANGE#                                   NUMBER
 LAST_REDO_TIME                                      DATE
```

-

```
SQL> desc v$datafile;
 Nom                                       NULL ?   Type
 ----------------------------------------- -------- ----------------------------
 FILE#                                               NUMBER
 CREATION_CHANGE#                                    NUMBER
 CREATION_TIME                                       DATE
 TS#                                                 NUMBER
 RFILE#                                              NUMBER
 STATUS                                              VARCHAR2(7)
 ENABLED                                             VARCHAR2(10)
 CHECKPOINT_CHANGE#                                  NUMBER
 CHECKPOINT_TIME                                     DATE
 UNRECOVERABLE_CHANGE#                               NUMBER
 UNRECOVERABLE TIME                                  DATE
```

12- Affichage des noms des utilisateurs

```
SQL> select * from all_users;

USERNAME                          USER_ID CREATED
------------------------------ ---------- --------
BI                                     90 06/02/20
PM                                     89 06/02/20
SH                                     88 06/02/20
IX                                     87 06/02/20
OE                                     86 06/02/20
HR                                     85 06/02/20
SCOTT                                  84 13/08/09
OWBSYS_AUDIT                           83 13/08/09
OWBSYS                                 79 13/08/09
APEX_030200                            78 13/08/09
APEX_PUBLIC_USER                       76 13/08/09
```