# DBA 625 -- Assignment #1, Due by Wednesday, March 07th by 5pm

**PRINTOUTS only, NO e-mails allowed.**

Before starting to work on this assignment, you must be sure to have exactly 3 Log Groups and only one Log Member per each group. All Log files should be located under directory **$ORACLE_BASE/oradata/student**

Also you must have at least these five Tablespaces (SYSTEM, SYSAUX, UNDOTBS1, USERS and TEMP) and their Datafiles located under same directory as well.

**You may have additional Tablespaces / Datafiles, but they will be ignored here.**

You must also create (if not already) 4 new subdirectories under **$ORACLE_BASE/oradata** with names: DISK2 DISK3 DISK4 and DISK5. They will mimic 4 brand new disks placed on your server.

Also, edit your PFILE **"initstudent.ora"** and add following values to it, so that memory values are exactly like shown here → SGA_TARGET=804M, PGA_AGGREGATE_TARGET=220M, **SHARED_POOL_SIZE=256M, JAVA_POOL_SIZE=16M, LARGE_POOL_SIZE=8M, DB_CACHE_SIZE=400M.**

Finally connect to your instance as SYSDBA. Then record your MOBAXTERM sessions and gather "Good Work" in your ***"Assig1.doc"*** document. You have to do required steps in **a sequence**, because the next step depends on the previous one! The document must reflect **COMMAND LINE** syntax. After finishing all steps, you are going to submit just this **document**.

## One:

a) Your Database should be down initially. Perform the Instance Startup by using your PFILE and move through all 3 stages (one after another and without shutdown). AFTER each stage check TWO appropriate dynamic views, where first will show that you really are in that stage and second will show that you are not in the next stage (except when in OPEN stage, you should check only one view).

b) Show the full paths and names (just names) for all Control, Log and Data files by checking appropriate dynamic performance views.

c) Show values of all six important SGA parameters by using the "Quick" method three times (without specifying SELECT statement).

d) Then try to increase the value of your Large Pool promptly to 160M.
What happened? Explain.

e) Now, try to increase the value of your Java Pool promptly to 120M.
What happened? Explain.

NOTE: Promptly means NOW and NOT LATER after the new startup.

f) Deduct the minimal amount of memory from ~~Large Pool~~, so that you can achieve the target of 120M for Java Pool. Perform both tasks (decrease followed by increase).
g) In DB Express figure out what is the Current Usage of SGA and then print what portion of SGA is still unused.
h) Close your Database so that Checkpoint will NOT happen and all transactions will be undone. Then start it by using your PFILE again. What happened with changes for Large and Java Pool?
i) Now display last 30 lines from your "Database Journal"

## Two:

a) Create a new Tablespace called BLUE with an initial size of 5M and that all extents are automatically sized and allocated by Server. Datafile **blue01.dbf** should go to DISK4 folder.
b) Create a new Tablespace called RED with an initial size of 2M with all extents of equal size 200K. Datafile **red01.dbf** should go to DISK2 folder and should have auto-extend option turned on with all new extents of 128K in size and with the limit of 5M.
c) Add a second datafile to Tablespace RED with an initial size of 1M.
Datafile **red02.dbf** should go to DISK3 folder and try to make this file with all extents uniformed in size of 48K.
Explain why that was not successful? Then just add this file without that option.
d) Use DBA_TABLESPACES view to display all tablespace names, their available status, can they store data or not, management mode, how the size of the extents is managed, their actual size, but only for freshly created tablespaces and 'USERS'.
e) Use DBA_DATA_FILES view to display file numbers, their names, tablespace names they belong to, current size (in blocks only) and their auto-extend information (with 3 components), but only for freshly created files and file from the 'USERS' tablespace.
f) Resize the second datafile in Tablespace RED to 2M and make it auto-extendable with extent size of 128K and with the limit of 4M. g) Try to make the file in Tablespace BLUE auto-extendable with the extent size 2 times greater than it was the case with the original extent.
Do not specify the limit. Was it successful?
What will be the limit value in this case - check the appropriate view and show only that column for Tablespace BLUE. h) Try to limit auto-extension from the previous question to 10M without specifying the NEXT extent value. Was it successful?
What is now value of that (NEXT) parameter -- check the appropriate view and show only that column for Tablespace BLUE.
i) Move datafile **red02.dbf** to the DISK4 folder by using the appropriate scenario steps (when dealing with non-critical datafiles).
j) Repeat step e)
k) Display in DB Express current Tablespace / Datafile situation.

## Three:

a) Create a fourth and fifth Log Group and place them in the same directory where the existing log groups are already. Size for both new groups should be 30M each.
b) Create a second Log Member for each Log File (5 of them) in a subdirectory DISK3.
c) Show the full paths and names for all Log Files by using an appropriate dynamic performance view.
d) Show Log Sequence Number, First System Change Number and Status for all Log files by using an appropriate dynamic performance view.
e) Relocate (move) just the second member of the fourth group to subdirectory DISK4.
f) Drop the fifth group completely. Then repeat step c)
g) Perform two manual log switches. Then repeat step d)
h) Check the status of all Log Files, and if there is one or more ACTIVE ones, then perform manual command, so that all these active files become inactive. Then repeat step d)

**And do NOT forget to have a FUN!!!**