

# ASSIGNMENT #2 – Getting to Know Oracle's Data Dictionary

ISQA 4300/8306-001

Fall 2010

**Due date: Monday, September 27  
(any time)**

## Overview

Oracle uses its data dictionary to store an enormous amount of meta-data, data about the data and the database. In this assignment, you will explore some of the many views that constitute the data dictionary to answer questions about the Oracle database and the Oracle instance.

The purpose of the second assignment is to begin the on-going process of understanding the database by accessing the contents of the data dictionary. We will start by focusing on some of the dynamic performance views, which all have the prefix 'V\$'. The views relevant to this assignment are

V\$ARCHIVE_DEST	Describes the location of archived redo log files
V\$BGPROCESS	Describes the background processes.
V\$BUFFER_POOL	Displays information about all the buffer pools available for the instance.
V\$CONTROLFILE	Lists the name of control files.
V\$DATABASE	Contains database information from the control file.
V\$DATAFILE	Contains datafile information from the control file.
V\$FILESTAT	Contains information about file read/write statistics.
V\$INSTANCE	Displays the state of the current instance.
V\$LIBRARYCACHE	Contains statistics about library cache performance and activity.
V\$LOG	Contains log file information from the control files.
V\$LOGFILE	Contains information about redo log files.

V\$LOGHIST	Contains a record of all log changes
V\$PARAMETER	Lists information about initialization parameters.
V\$PROCESS	Contains information about the currently active process.
V\$ROWCACHE	Displays statistics for data dictionary activity.
V\$SESSION	Lists session information for each current session.
V\$SESS_IO	Lists I/O statistics for each user session.
V\$SGA	Contains summary information on the System Global Area.
V\$SGAINFO	Contains detailed information on the System Global Area.
V\$SGA_DYNAMIC_COMPONENTS	Shows the SGA components that can be dynamically resized (e.g. without restarting the database).

Use the SQL\*Plus DESCRIBE command, or query the DICT\_COLUMNS view, or expand *other users->SYS->views->V\_\$view name* in SQL Developer to determine the columns of each of the views listed in the table above.

This assignment requires the use of SQL. If you need a refresher, there are number of SQL resources available from the Resources/SQL Resources section of Blackboard.

To download and install SQL Developer, view the video at <http://tinyurl.com/3uxzhd>

## Task 1: Exploring the Database (95 points)

Download the script file 2010Fall\_4300-8306\_assign2.sql. This file contains the questions you are to answer using SQL.

The file is a simple text file, so **as you find the SQL query that answers the question, paste the query text into the file below the question. Except for questions #18, 19, 27, & 28, please paste in only the query, not the result of running the query.** I will execute your file myself to verify that the queries work correctly.

Please note: For full credit, your SQL query should return as precise an answer as possible to the question. For example, in questions #9-10, your query should return one row of result. If the same query can answer multiple questions (again, #9-10) I will accept the same query as the answer for both.

To test that your script, use a command like this in SQL\*Plus

```
SQL> @c:\temp\2010Fall_4300Assign2.sql
```

The '@' sign is the command to execute the content of a file.

Or, in SQL Developer, open your file (File->Open-> choose your script), then click on the Run Script icon (or press F5). View the results in the Script Output tab.

ISQA 4300 students: Pick any 30 questions (no extra credit for >30)

ISQA 8306 students: Do all 35 questions

## Task 2: Reflection (5 points)

Pick **two** (2) of the bullet points from this list and answer the questions<sup>1</sup>. Please indicate which questions you are answering.

- What did I actually achieve with this piece of work? Which were the most difficult parts, and why were they difficult for me? Which were the most straightforward parts, and why did I find these easy?
- How well do I think I achieved the intended learning outcomes for this task? Where could I have improved my achievement? Why didn't I improve it at the time?
- What have I got out of doing this assignment? How have I developed my knowledge and skills? How do I see the payoff from doing this assignment helping me in the longer term?
- What else have I got out of doing this assignment? Have I developed other skills and knowledge, which may be useful elsewhere at another time? If so, what are my own emergent learning outcomes from doing this assignment?
- What was the best thing I did? Why was this the best thing I did? How do I know that this was the best thing I did?
- What worked least well for me? Why did this not work well for me? What have I learned about the topic concerned from this not having worked well for me? What have I learned about myself from this not having worked well for me? What do I plan to do differently in future as a result of my answers to the above questions?
- With hindsight, how would I go about this assignment differently if doing it again from scratch? To what extent will this assignment influence the way I tackle anything similar in future?
- What did I find the greatest challenge in doing this work? Why was this a challenge to me? To what extent do I feel I have met this challenge? What can I do to improve my performance when next meeting this particular sort of challenge?

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<sup>1</sup> Questions taken from <http://www.escalate.ac.uk/resources/reflection/09.html>

- What was the most boring or tedious part of doing this assignment for me? Can I see the point of doing these things? If not, how could the assignment have been re-designed to be more stimulating and interesting for me?
- Has it been worth the effort I put in? Do the marks represent a just reward? Should this assignment be worth more or less marks in the overall scheme of things?
- Do I feel that my time on this assignment has been well spent? If not, how could I have used my time more sensibly? Or should the assignment have been designed differently? Which parts of the assignment represent the time best spent? Which parts could be thought of as time wasted?
- How useful do I expect the feedback to be, that I receive on my efforts for this assignment? What sorts of feedback do I really want at this point in time? What sorts of feedback do I really need at this point in time? What are my expectations of getting useful feedback now, based on the feedback (or lack of it) that I've already received on past work?
- Overall, how has this assignment helped (or hindered) my motivation to learn more about this part of my syllabus? Has it encouraged me, or disillusioned me?
- To what extent has this assignment helped me to clarify what I need to learn about this topic? Have I a clearer picture after doing the assignment, or a foggier one? Who can help me gain a clearer picture, if the latter?
- To what extent has this assignment helped me to see where the goalposts stand for future assessments such as exams? Has it given me useful insights into what will be expected of me in future?
- What advice would I give go a friend about to start on the same assignment? How much time would I suggest that it would be worth putting into it? What pitfalls would I advise to be well worth not falling into?
- What are the three most important things that I think I need to do with this topic at this moment in time? Which of these do I think is the most urgent for me to do? When will I aim to start doing this, and what is a sensible deadline for me to have completed it by?

## **Deliverables**

Submit two documents using the Blackboard Assignment:

1. The 2010Fall\_4300-8306\_assign2.sql script with your queries pasted into it.
2. A Word or text file with your reflections. Please include the questions you are answering together with your answers.