

## ASSIGNMENT 7

### SELECT

**You must execute the statements in the order in which the questions are being asked.**

Suggestions:

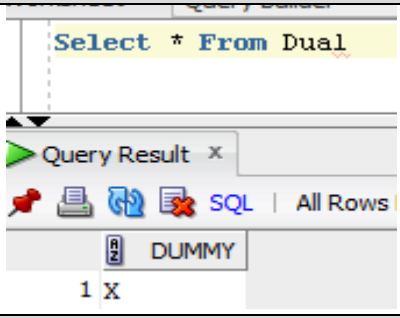
- 1) Do not create a spool file. This lab will probably take several days. Since you cannot guarantee that the work that you did on my home computer or the lab computers on campus will be there the next time you open up the SQLPlus session, I would make the following suggestion: Store all your SQL statements in a text file. Then you can just copy and paste your SQL statements into the SQLPlus session and get back to where you left off.
- 2) I would also suggest that you drop all your tables in the beginning of the text file just in case the tables are still there so that you don't get any error messages

All the tables that you create should be prefixed with the first five letters of your lastname such as **sabze\_patient**

What to turn in:

- 1) You will turn in this word document only. I do not want any other files
- 2) Paste a printscreen of either the **SQLPlus session** or **SQL Developer** showing only the SQL command and the results from the database engine. Some of the SQL statements that you issue may cause an error and may actually be the expected result. Do not assume that just because you are not getting an error message, everything is okay.
- 3) When typing in your SQL statements, make sure that the **keywords** are all in **uppercase**. The identifiers that you come up with such as **table names, column names or constraint names** should all be in **lower case**.
- 4) Make sure that you prefix your table names with the **first five letters of your last name**.
- 5) Make sure that you **only provide a printscreen of the snippet that pertains to the question (NOTHING MORE)**.

Suggestion: you can use the snipping tool in windows 7 or you can download this open source program <http://getgreenshot.org/> for printscreens. Provide only the printscreen that pertains to the question. **I do not want to see your trial and errors or things that pertain to other questions.**

SQLPlus or SQLDeveloper (Your choice)	
Example	Display the contents of the dual table
	<div><div><pre>SQL&gt; SELECT * FROM dual; D X 1 row selected.</pre></div><div>OR</div><div></div></div>
Next Example	Create a table called test

```
SQL> CREATE TABLE sabze_test
2 (
3   col CHAR
4 );
```

Table created.

OR

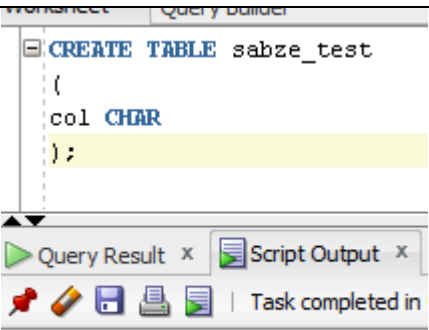


table SABZE\_TEST created.

All the tables that you create must be prefixed with the first five letters of your last name such as sabze\_student.

0	Copy and paste the contents of student.txt into your SQLPlus or SQLDeveloper session. Rename the tables such that they are all prefixed with the first five letters of your lastname such as sabze_student. Make sure that the tables (student, class and student_class) are all renamed properly before you continue.																																																																											
1	<p>Using a single SQL statement display fname, lname, dob, salary for all the <b>students</b> whose age is greater than 15. (Have to convert the dob to years)</p> <pre>SELECT fname, lname, dob, salary FROM chavez_student WHERE ROUND(MONTHS_BETWEEN(SYSDATE,dob)/12) &gt; 15;</pre> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th></th> <th>FNAME</th> <th>LNAME</th> <th>DOB</th> <th>SALARY</th> </tr> </thead> <tbody> <tr><td>1</td><td>Abraham</td><td>Bennet</td><td>26-FEB-88</td><td>10000</td></tr> <tr><td>2</td><td>Marjorie</td><td>Green</td><td>25-FEB-89</td><td>20000</td></tr> <tr><td>3</td><td>Albert</td><td>Greenr</td><td>24-FEB-92</td><td>15000</td></tr> <tr><td>4</td><td>Ann</td><td>Dull</td><td>23-FEB-93</td><td>30000</td></tr> <tr><td>5</td><td>Akiko</td><td>Yokomoto</td><td>22-FEB-94</td><td>35000</td></tr> <tr><td>6</td><td>Michael</td><td>O'Leary</td><td>12-FEB-95</td><td>32000</td></tr> <tr><td>7</td><td>Burt</td><td>Gringlesby</td><td>12-FEB-96</td><td>34000</td></tr> <tr><td>8</td><td>Morningstar</td><td>Greene</td><td>11-FEB-95</td><td>25000</td></tr> <tr><td>9</td><td>Cal</td><td>Al</td><td>06-FEB-98</td><td>22000</td></tr> <tr><td>10</td><td>Johnson</td><td>White</td><td>05-FEB-99</td><td>23000</td></tr> <tr><td>11</td><td>Innes</td><td>del Castillo</td><td>04-FEB-82</td><td>23500</td></tr> <tr><td>12</td><td>Sheryl</td><td>Hunter</td><td>03-FEB-79</td><td>18000</td></tr> <tr><td>13</td><td>Chastity</td><td>Locksley</td><td>02-FEB-78</td><td>15500</td></tr> <tr><td>14</td><td>Reginald</td><td>Blotchett-Halls</td><td>01-FEB-77</td><td>43000</td></tr> </tbody> </table>		FNAME	LNAME	DOB	SALARY	1	Abraham	Bennet	26-FEB-88	10000	2	Marjorie	Green	25-FEB-89	20000	3	Albert	Greenr	24-FEB-92	15000	4	Ann	Dull	23-FEB-93	30000	5	Akiko	Yokomoto	22-FEB-94	35000	6	Michael	O'Leary	12-FEB-95	32000	7	Burt	Gringlesby	12-FEB-96	34000	8	Morningstar	Greene	11-FEB-95	25000	9	Cal	Al	06-FEB-98	22000	10	Johnson	White	05-FEB-99	23000	11	Innes	del Castillo	04-FEB-82	23500	12	Sheryl	Hunter	03-FEB-79	18000	13	Chastity	Locksley	02-FEB-78	15500	14	Reginald	Blotchett-Halls	01-FEB-77	43000
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2	<p>Using a single SQL statement display the following from the <b>student</b> table.  <i>ssn, lname and fname</i> concatenated together with a comma and a space separating the two (e.g <b>sabzevary, IRAJ</b>). The last name should be all lower case. The first name should be all upper case. The heading on the column should be <b>Full_Name (Use the concat function or the    symbols)</b></p> <p>NOTE: Wasn't sure how ssn, lname, and fname should be formatted, so two solutions are provided.</p> <pre>SELECT ssn    ', '    LOWER(lname)    ', '    UPPER(fname) AS Full_Name FROM chavez_student;</pre> <table> <thead> <tr> <th></th><th>FULL_NAME</th></tr> </thead> <tbody> <tr><td>1</td><td>999-00-0000, al, CAL</td></tr> <tr><td>2</td><td>409-56-7008, bennet, ABRAHAM</td></tr> <tr><td>3</td><td>648-92-1872, blotchet-halls, REGINALD</td></tr> <tr><td>4</td><td>427-17-2319, dull, ANN</td></tr> <tr><td>5</td><td>998-72-3567, greeenr, ALBERT</td></tr> <tr><td>6</td><td>213-46-8915, green, MARJORIE</td></tr> <tr><td>7</td><td>527-72-3246, greene, MORNINGSTAR</td></tr> <tr><td>8</td><td>238-95-7766, gren, CHERYL</td></tr> <tr><td>9</td><td>472-27-2349, gringlesby, BURT</td></tr> <tr><td>10</td><td>846-92-7186, hunter, SHERYL</td></tr> <tr><td>11</td><td>486-29-1786, locksley, CHASTITY</td></tr> <tr><td>12</td><td>267-41-2394, o'leary, MICHAEL</td></tr> <tr><td>13</td><td>172-32-1176, white, JOHNSON</td></tr> <tr><td>14</td><td>672-71-3249, yokomoto, AKIKO</td></tr> <tr><td>15</td><td>712-45-1867, del castillo, INNES</td></tr> </tbody> </table> <pre>SELECT ssn    ', '    LOWER(lname)    ' '    UPPER(fname) AS Full_Name FROM chavez_student;</pre> <table> <thead> <tr> <th></th><th>FULL_NAME</th></tr> </thead> <tbody> <tr><td>1</td><td>999-00-0000, al CAL</td></tr> <tr><td>2</td><td>409-56-7008, bennet ABRAHAM</td></tr> <tr><td>3</td><td>648-92-1872, blotchet-halls REGINALD</td></tr> <tr><td>4</td><td>427-17-2319, dull ANN</td></tr> <tr><td>5</td><td>998-72-3567, greeenr ALBERT</td></tr> <tr><td>6</td><td>213-46-8915, green MARJORIE</td></tr> <tr><td>7</td><td>527-72-3246, greene MORNINGSTAR</td></tr> <tr><td>8</td><td>238-95-7766, gren CHERYL</td></tr> <tr><td>9</td><td>472-27-2349, gringlesby BURT</td></tr> <tr><td>10</td><td>846-92-7186, hunter SHERYL</td></tr> <tr><td>11</td><td>486-29-1786, locksley CHASTITY</td></tr> <tr><td>12</td><td>267-41-2394, o'leary MICHAEL</td></tr> <tr><td>13</td><td>172-32-1176, white JOHNSON</td></tr> <tr><td>14</td><td>672-71-3249, yokomoto AKIKO</td></tr> <tr><td>15</td><td>712-45-1867, del castillo INNES</td></tr> </tbody> </table>		FULL_NAME	1	999-00-0000, al, CAL	2	409-56-7008, bennet, ABRAHAM	3	648-92-1872, blotchet-halls, REGINALD	4	427-17-2319, dull, ANN	5	998-72-3567, greeenr, ALBERT	6	213-46-8915, green, MARJORIE	7	527-72-3246, greene, MORNINGSTAR	8	238-95-7766, gren, CHERYL	9	472-27-2349, gringlesby, BURT	10	846-92-7186, hunter, SHERYL	11	486-29-1786, locksley, CHASTITY	12	267-41-2394, o'leary, MICHAEL	13	172-32-1176, white, JOHNSON	14	672-71-3249, yokomoto, AKIKO	15	712-45-1867, del castillo, INNES		FULL_NAME	1	999-00-0000, al CAL	2	409-56-7008, bennet ABRAHAM	3	648-92-1872, blotchet-halls REGINALD	4	427-17-2319, dull ANN	5	998-72-3567, greeenr ALBERT	6	213-46-8915, green MARJORIE	7	527-72-3246, greene MORNINGSTAR	8	238-95-7766, gren CHERYL	9	472-27-2349, gringlesby BURT	10	846-92-7186, hunter SHERYL	11	486-29-1786, locksley CHASTITY	12	267-41-2394, o'leary MICHAEL	13	172-32-1176, white JOHNSON	14	672-71-3249, yokomoto AKIKO	15	712-45-1867, del castillo INNES
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3

Using a single SQL statement display fname, lname, dob, salary from the **student** table where the lname contains the letters 'h' or 'a' regardless of case (Use the like clause)

SELECT fname, lname, dob, salary
FROM chavez\_student
WHERE LOWER(lname) LIKE '%h%' OR LOWER(lname) LIKE '%a%';

	FNAME	LNAME	DOB	SALARY
1	Michael	O'Leary	12-FEB-95	32000
2	Cal	Al	06-FEB-98	22000
3	Johnson	White	05-FEB-99	23000
4	Innes	del Castillo	04-FEB-82	23500
5	Sheryl	Hunter	03-FEB-79	18000
6	Reginald	Blotch-Halls	01-FEB-77	43000

4

Using a single SQL statement display fname, lname, dob, salary from the **student** table where age is between 15 and 25. (use the between clause) and fname starts with 'abr' regardless of case. If the dob is null, display 'not born yet' (USE NVL)

SELECT fname, lname, NVL(TO\_CHAR(dob), 'not born yet'), salary
FROM chavez\_student
WHERE LOWER(fname) LIKE 'abr%' AND ROUND(MONTHS\_BETWEEN(SYSDATE, dob)/12) BETWEEN 15 AND 25;

	FNAME	LNAME	NVL(TO_C...	SALARY
--	-------	-------	-------------	--------

5

Using a single SQL statement display fname, lname, dob, salary from the **student** table where the dob is not null. If the salary is <20000 display 'poor' otherwise display 'rich' (Use decode)

NOTE: First solution doesn't handle 0 result of the SIGN function, Second solution does.

SELECT fname, lname, dob, salary, DECODE(SIGN(salary-20000), 1, 'rich', -1, 'poor')
FROM chavez\_student
WHERE dob IS NOT NULL;

	FNAME	LNAME	DOB	SALARY	DECODE(SIGN(SALARY-20000), 1, 'RICH', -1, 'POOR')
1	Abraham	Bennet	26-FEB-88	10000	poor
2	Marjorie	Green	25-FEB-89	20000	(null)
3	Albert	Greenr	24-FEB-92	15000	poor
4	Ann	Dull	23-FEB-93	30000	rich
5	Akiko	Yokomoto	22-FEB-94	35000	rich
6	Michael	O'Leary	12-FEB-95	32000	rich
7	Burt	Gringlesby	12-FEB-96	34000	rich
8	Morningstar	Greene	11-FEB-95	25000	rich
9	Cal	Al	06-FEB-98	22000	rich
10	Johnson	White	05-FEB-99	23000	rich
11	Innes	del Castillo	04-FEB-82	23500	rich
12	Sheryl	Hunter	03-FEB-79	18000	poor
13	Chastity	Locksley	02-FEB-78	15500	poor
14	Reginald	Blotch-Halls	01-FEB-77	43000	rich

```
SELECT fname, lname, dob, salary, DECODE(SIGN(salary-20000),1,'rich',-1,'poor',0,'rich')
FROM chavez_student
WHERE dob IS NOT NULL;
```

	FNAME	LNAME	DOB	SALARY	DECODE(SIGN(SALARY-20000),1,'RICH',-1,'POOR',0,'RICH')
1	Abraham	Bennet	26-FEB-88	10000	poor
2	Marjorie	Green	25-FEB-89	20000	rich
3	Albert	Greenr	24-FEB-92	15000	poor
4	Ann	Dull	23-FEB-93	30000	rich
5	Akiko	Yokomoto	22-FEB-94	35000	rich
6	Michael	O'Leary	12-FEB-95	32000	rich
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13	Chastity	Locksley	02-FEB-78	15500	poor
14	Reginald	Blotch-Halls	01-FEB-77	43000	rich

- 6 Using a single SQL statement display the square root of dob plus 20 divided by 5 from the **student** table( CAUTION: The order of precedence is as the question is read. Use paranthesis) (Have to convert dob to years first)

```
SELECT dob, (SQRT(ROUND(MONTHS_BETWEEN(SYSDATE,dob)/12))+20)/5
FROM chavez_student;
```

	DOB	(SQRT(ROUND(MONTHS_BETWEEN(SYSDATE,DOB)/12))+20)/5
1	26-FEB-88	5.14891252930760573197012229364378586364
2	25-FEB-89	5.13137084989847603904135097936775846286
3	(null)	(null)
4	24-FEB-92	5.07703296142690080625014209830806591126
5	23-FEB-93	5.05830052442583623620064630145570417028
6	22-FEB-94	5.03923048454132637611646780490352342017
7	12-FEB-95	5.01980390271855696600564482180455639791
8	12-FEB-96	5
9	11-FEB-95	5.01980390271855696600564482180455639791
10	06-FEB-98	4.959166304662543908319487612832538784
11	05-FEB-99	4.93808315196468591091312602270889325612
12	04-FEB-82	5.24899959967967964116937862418795889221
13	03-FEB-79	5.29614813968157204619319348721759933154
14	02-FEB-78	5.31148770486040013046882199952720032559
15	01-FEB-77	5.32664991614215993964597309466827467357

7	Using a single SQL statement display fname, lname, dob, salary from the <b>student</b> table where the first name of the student can be <b>anything except</b> John, Jack or Bob. (Use the IN or NOT IN syntax)
---	---

```
SELECT fname, lname, dob, salary
FROM chavestudent
WHERE fname NOT IN ('John', 'Jack', 'Bob');
```

FNAME	LNAME	DOB	SALARY
1 Abraham	Bennet	26-FEB-88	10000
2 Marjorie	Green	25-FEB-89	20000
3 Cheryl	Gren	(null)	45000
4 Albert	Greenr	24-FEB-92	15000
5 Ann	Dull	23-FEB-93	30000
6 Akiko	Yokomoto	22-FEB-94	35000
7 Michael	O'Leary	12-FEB-95	32000
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13 Sheryl	Hunter	03-FEB-79	18000
14 Chastity	Locksley	02-FEB-78	15500
15 Reginald	Blotchett-Halls	01-FEB-77	43000

8	Using a single SQL statement display fname, lname, dob, salary from the <b>student</b> table where the fname is only three characters long; the first character and second characters can be anything, but the third character must be 'b' (e.g. bob, cib, lib, hub, mob). Also the salary must be greater than 10000 and the phone number must start with '527'
---	--

```
SELECT fname, lname, dob, salary
FROM chaves_student
WHERE LOWER(SUBSTR(fname,1,3)) LIKE '%b' AND salary>10000 AND phone LIKE '527%';
```

FNAME	LNAME	DOB	SALARY
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9	Create a new table called student2 that contains the results from the following SQL statement: fname, lname, salary*2 from the <b>student</b> table where last name contains the letters 'nn' (e.g. Benny, Bonny, Sonny) and dob does not contain any data. (NOTE: Beware of salary*2 for the create table statement)
---	---

```
DROP TABLE chave_student2;  
CREATE TABLE chave_student2 AS SELECT fname,lname,salary*2 new_salary  
FROM chave_student  
WHERE lname LIKE '%nn%' AND DOB IS NULL;
```

```
table CHAVE STUDENT2 created.
```