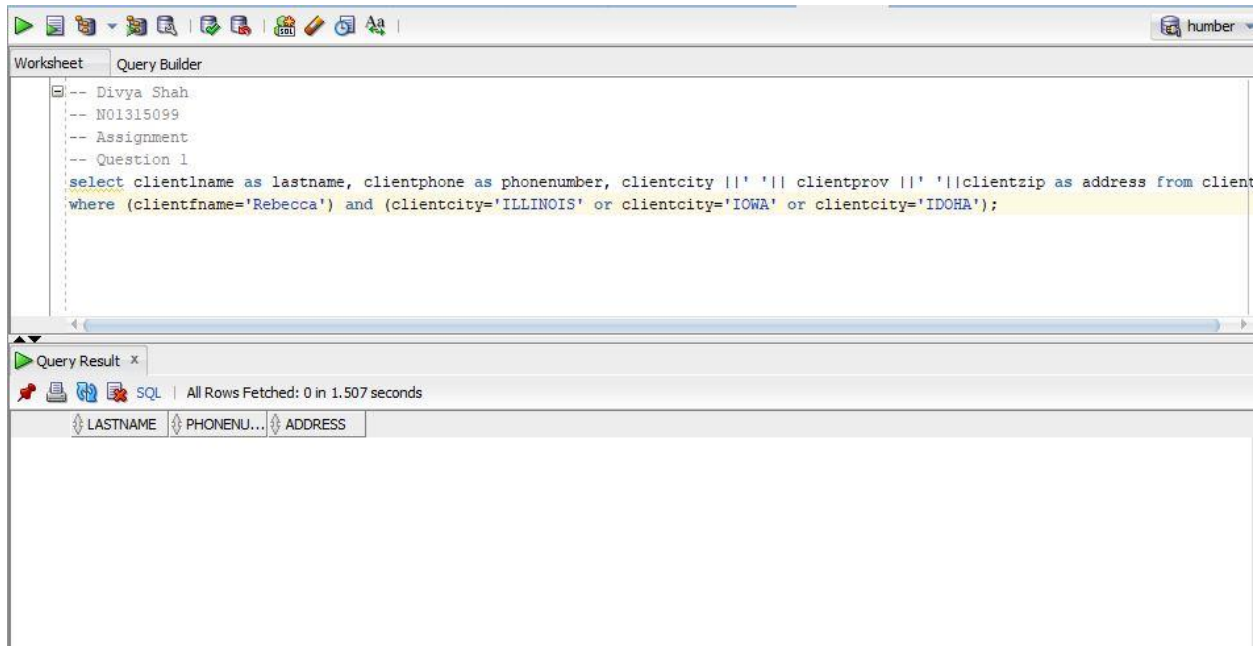


# Assignment 1- Batch A N01315099 Divya Shah

## Q1

We're looking for the phone number, full address, and last name of a client named rebecca. She's either from ILLINOIS, IDAHO, or IOWA, I can't remember



Code: select clientname as lastname, clientphone as phonenumber, clientcity || ' ' || clientprov || ' ' || clientzip as address from clients where (clientfname='Rebecca') and (clientcity='ILLINOIS' or clientcity='IOWA' or clientcity='IDAHO');

**Notes:**

Worksheet Query Builder

```
-- Divya Shah
-- N01315099
-- Assignment
-- Question 1
select clientname as lastname, clientphone as phonenumber, clientcity || ' ' || clientprov || ' ' || clientzip as address from clients
where (clientfname='Rebecca');
```

Query Result x

All Rows Fetched: 1 in 0.105 seconds

LASTNAME	PHONENUMBER	ADDRESS
1 Wilcox	970544403	CONWAY NEW HAMPSHIRE 21258

Checked the whole table but only have one Rebecca in New Hamsphire

Worksheet Query Builder

```
-- Divya Shah
-- N01315099
-- Assignment
-- Question 1
select clientname as lastname, clientphone as phonenumber, clientcity || ' ' || clientprov || ' ' || clientzip as address from clients
where (clientfname="rebecca");
```

Query Result x

Executing:select clientname as lastname, clientphone as phonenumber, clientcity || ' ' || clientprov || ' ' || clientzip as address from clients where (clientfname="rebecca") in

ORA-00904: 'rebecca': invalid identifier  
 00904. 00000 - "%s: invalid identifier"  
 \*Cause:  
 \*Action:  
 Error at Line: 6 Column: 20

Error code: where (clientfname="Rebecca"); instead of (clientfname='Rebecca'); // also its case sensitive

Worksheet | Query Builder

```
-- Divya Shah
-- N01315099
-- Assignment
-- Question 1
select clientname as lastname, clientphone as phonenumber, clientcity || ' ' || clientprov || ' ' || clientzip as address from client
where (clientname='Rebecca') and (clientcity='ILLINOIS' or clientcity='IOWA' or clientcity='CONWAY');
```

Query Result x

SQL | All Rows Fetched: 1 in 0.105 seconds

	LASTNAME	PHONENUMBER	ADDRESS
1	Wilcox	970544403	CONWAY NEW HAMPSHIRE 21258

Works if we add clientcity='CONWAY'

Also can use

Where (clientname='rebecca') and (clientcity in 'ILLINOIS' 'IDOA','IOWA');

## Q2

I'd like to call some clients about their point total. Show me the last name, firstname, and phone number of clients with credits between 500 and 2000 who joined before October 2017. Order the list from highest points to lowest points first.

Worksheet | Query Builder

```
-- Divya Shah
-- N01315099
-- Assignment
-- Question 2
select clientname as lastname, clientfname as firstname, clientphone as phonenumber, clientcredits, clientjoindate from clients
where (clientcredits between 500 and 2000) and clientjoindate<'01-oct-2017'
order by clientcredits desc;
```

Query Result x

SQL | All Rows Fetched: 49 in 0.009 seconds

	LASTNAME	FIRSTNAME	PHONENUMBER	CLIENTCREDITS	CLIENTJOINDATE
1	Kennedy	Courtney	575661608	1990	05-OCT-00
2	Jenkins	Stephanie	970327775	1970	15-SEP-08
3	DDS	Emily	647925752	1970	03-JUL-11
4	PhD	Stephanie	647977449	1950	17-MAR-99
5	Chan	Linda	647418011	1940	16-JUL-05
6	McIntosh	Michael	647954884	1930	03-MAY-98

**Notes:**

Used code

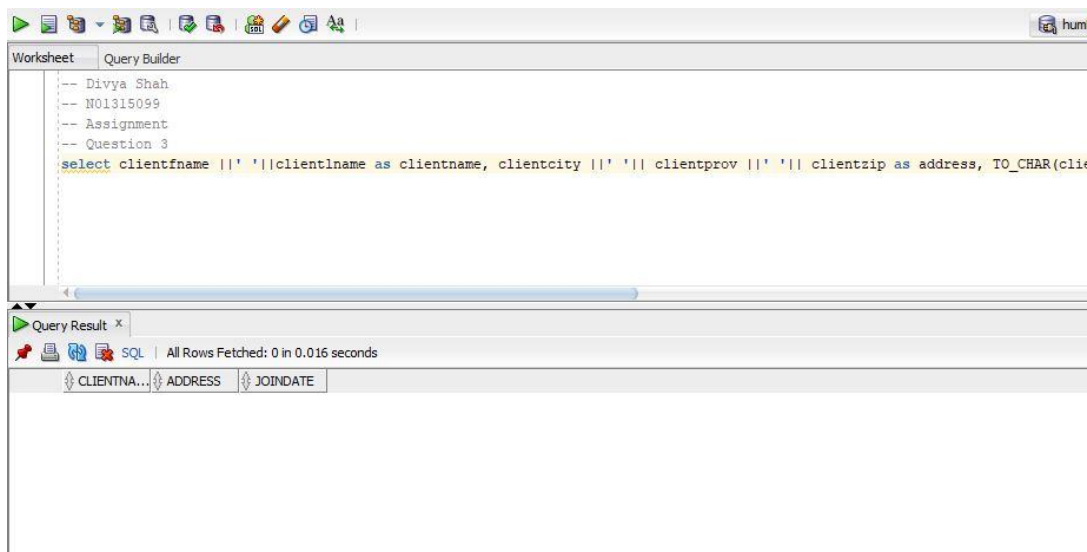
N01315099

where (clientcredits>500 and clientcredits<2000) and clientjoindate<'01-oct-2017' order by clientcredits desc;

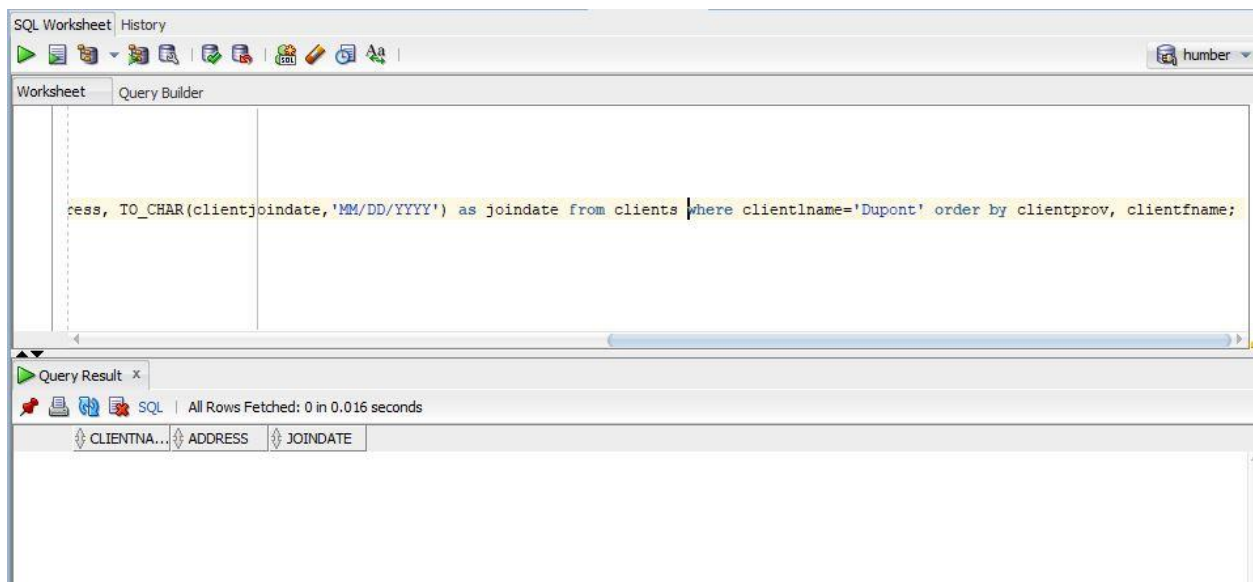
### Q3

Find me all the clients from the dupont family, order the results by province first then by first name. We need the full name, the address, and the join date (formatted with MM/DD/YYYY)

#### Part 1



#### Part 2



Code: select clientfname || ' ' || clientlname as clientname, clientcity || ' ' || clientprov || ' ' || clientzip as address, TO\_CHAR(clientjoindate,'MM/DD/YYYY') as joindate from clients where clientlname='Dupont' order by clientprov, clientfname;

#### Notes:

There were no one from Dupont family so tried with Freeman as clientlname

The screenshot shows a SQL query builder window with a 'Query Builder' tab. The query text is: `select clientfname || ' ' || clientlname as fullname, clientcity || ' ' || clientprov || ' ' || clientzip as address, TO_CHAR(clientjoindate,'MM/DD/YYYY') as joindate from clients where clientlname='Freeman' order by clientprov, clientfname;`. Below the query, the 'Query Result' tab shows the results of the query. The status bar indicates 'All Rows Fetched: 1 in 0.015 seconds'. The result table has three columns: FULLNAME, ADDRESS, and JOINDATE. The first row contains the data for Jason Freeman.

FULLNAME	ADDRESS	JOINDATE
1 Jason Freeman	CULDESAC IDAHO 97670	10/06/2007

## Q4



We believe there has been a glitch in the system with our credits. Find all the clients with credits that are null or over 10000. List all client information like this.

Answer:

The screenshot shows a SQL query builder window with a 'Query Builder' tab. The query text is: `select clientfname as Firstname, clientcredits from clients where clientcredits=null or clientcredits>10000;`. Below the query, the 'Query Result' tab shows the results of the query. The status bar indicates 'All Rows Fetched: 0 in 0.018 seconds'. The result table has two columns: FIRSTNAME and CLIENTCR....

FIRSTNAME	CLIENTCR...
-----------	-------------

#### Notes:

Worksheet	
Query Builder	
<pre>-- Divya Shah -- N01315099 -- Assignment -- Question 4 select clientfname, clientcredits from clients where clientcredits&gt;1000;</pre>	
Query Result x	
  All Rows Fetched: 161 in 0.112 seconds	
CLIENTFNAME	CLIENTCREDITS
1 Sarah	1270
2 Jennifer	1050
3 Austin	3880
4 Mario	4400
5 Elizabeth	2620
6 Nicole	4770

Code :select clientfname, clientcredits from clients where clientcredits>1000;

Checked the DB couldn't find any credit limit greater than 10000 or equal to 1000

## Q5

Find the top 3 clients with the most credits. I want to see their last name, phone number, and credits.


Worksheet

Query Builder

-- Divya Shah  
-- N01315099  
-- Assignment  
-- Question 5

select clientlname as lastname, clientphone as phonenumber, clientcredits from clients order by clientcredits desc fetch first 3

Query Result x

 All Rows Fetched: 3 in 0.021 seconds

	LASTNAME	PHONENUMBER	CLIENTCREDITS
1	Andrews	970080990	4990
2	Murillo	905281271	4980
3	MD	575098809	4970

Code : select clientlname as lastname, clientphone as phonenumber, clientcredits from clients order by clientcredits desc fetch first 3 rows only;

**Notes:**

```
-- Divya Shah
-- N01315099
-- Assignment
-- Question 5
select clientfname, clientcredits from clients order by clientcredits desc;
```

Query Result x

SQL | Fetched 50 rows in 0.041 seconds

	CLIENTFNAME	CLIENTCREDITS
1	Hector	4990
2	Rachel	4980
3	Elizabeth	4970
4	Jacob	4940
5	Emily	4890
6	Zachary	4880
7	Jason	4850
8	Jerry	4830

## Q6

Find the 10 clients who have the oldest accounts with us.

Worksheet Query Builder

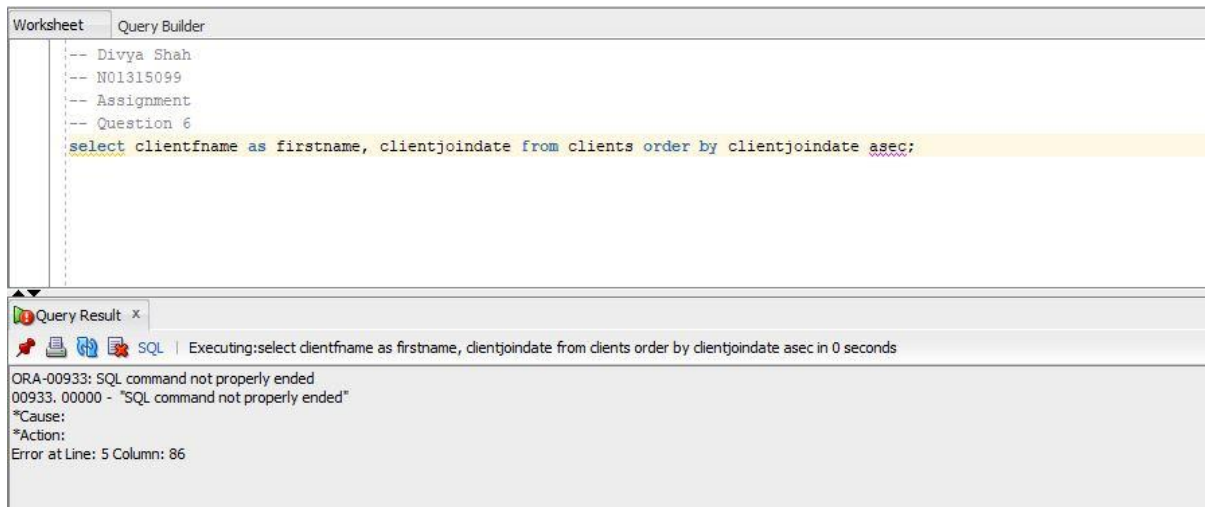
```
-- Divya Shah
-- N01315099
-- Assignment
-- Question 6
select clientfname as firstname, clientjoindate from clients order by clientjoindate asc fetch first 10 row only;
```

Query Result x

SQL | All Rows Fetched: 10 in 0.015 seconds

	FIRSTNAME	CLIENTJOINDATE
1	Michael	03-MAY-98
2	David	10-JUN-98
3	Beth	22-JUN-98
4	Elizabeth	22-JUN-98
5	Michael	10-SEP-98
6	Keith	07-NOV-98
7	Andrew	06-DEC-98
8	Cody	12-JAN-99
9	Shannon	11-MAR-99
10	Stephanie	17-MAR-99

Notes:



Code mistake: select clientfname as firstname, clientjoindate Order by clientjoindate asec;

## Q7

We are considering a new formula for our credits. Our new credits formula will add 400 and then divide by 2. Write a select statement with columns new\_credits, old\_credits. Show all records where the old credits is over 1000. Use the dual table to show an example of this formula applied when the clientcredits is 2300.

Part 1:

The screenshot shows a SQL query builder window with a 'Query Builder' tab. The query text is as follows:

```
-- Divya Shah
-- N01315099
-- Assignment
-- Question 7
select clientcredits as old_credits, (clientcredits+400)/2 as new_credits from clients where clientcredits>1000;
```

Below the query, the 'Query Result' tab shows the results of the query:

```
All Rows Fetched: 161 in 0.08 seconds
```

	OLD_CREDITS	NEW_CREDITS
1	1270	835
2	1050	725
3	3880	2140
4	4400	2400
5	2620	1510
6	4770	2585
7	4740	2570
8	1360	880



select clientcredits as old\_credits, (clientcredits+400)/2 as new\_credits from clients where clientcredits>1000;

Part 2:

The screenshot shows the SQL Developer interface. The 'Query Builder' tab is active, displaying the following SQL query:

```
-- Divya Shah  
-- N01315099  
-- Assignment  
-- Question 7  
select (2300+400)/2 as new_credits from dual;
```

Below the query editor, the 'Query Result' tab shows the execution status: 'All Rows Fetched: 1 in 0.017 seconds'. The result is displayed in a table with one column, 'NEW\_CREDITS', and one row with the value 1350.

NEW_CREDITS
1350

select (2300+400)/2 as new\_credits from dual;

### Notes:

ERROR for dual table:

1. select clientcredits=2300 as old\_credits, (clientcredits+400)/2 as new\_credits from dual;
2. select clientcredit('2300'), (clientcredits+400)/2 as new\_credits from dual;

The screenshot shows the SQL Developer interface. The 'Query Builder' tab is active, displaying the following SQL query:

```
-- Divya Shah  
-- N01315099  
-- Assignment  
-- Question 7  
select clientcredits=2300 as old_credits, (clientcredits+400)/2 as new_credits from dual;
```

Below the query editor, the 'Query Result' tab shows the execution status: 'Executing:select clientcredits=2300 as old\_credits, (clientcredits+400)/2 as new\_credits from dual in 0 seconds'. An error message is displayed:

```
ORA-00923: FROM keyword not found where expected  
00923. 00000 - "FROM keyword not found where expected"  
*Cause:  
*Action:  
Error at Line: 5 Column: 21
```

Query: Still don't know whether we can assign a value in dual table or not.

## Q8

Find all clients who have joined within 14 days of the current date. (using sysdate). Organize the name so it's "lastname, firstname". Order by most recent first.

The screenshot shows the SQL Developer interface. The 'Query Builder' tab is active, displaying the following SQL query:

```
-- Divya Shah
-- N01315099
-- Assignment
-- Question 8
select clientname || ', ' || clientfname as clientname, TO_CHAR(clientjoindate, 'DD/MM/YYYY') as joindate from clients
where clientjoindate < SYSDATE-14 order by clientjoindate desc;
```

Below the query editor, the 'Query Result' tab shows the results of the query. It indicates that 50 rows were fetched in 0.098 seconds. The results are displayed in a table with two columns: CLIENTNAME and JOINDATE.

CLIENTNAME	JOINDATE
1 Montgomery, Lawrence	01/06/2018
2 Ruiz, Robert	11/05/2018
3 Jackson, Edward	27/03/2018
4 Norman, Katrina	24/03/2018
5 Henderson, Nicole	15/12/2017
6 Morales, Melissa	22/11/2017
7 Jones, Jennifer	09/11/2017
8 Ewing, Dylan	25/08/2017
9 Mclean, Matthew	13/08/2017

Code : select clientname || ', ' || clientfname as clientname, TO\_CHAR(clientjoindate, 'DD/MM/YYYY') as joindate from clients where clientjoindate < SYSDATE-14 order by clientjoindate desc;

### Notes:

The screenshot shows the SQL Developer interface. The 'Query Builder' tab is active, displaying the following SQL query:

```
-- Divya Shah
-- N01315099
-- Assignment
-- Question 8
select clientname || ', ' || clientfname as clientname, TO_CHAR(clientjoindate, 'DD/MM/YYYY') as joindate from clients order by clientjoindate desc;
```

Below the query editor, the 'Query Result' tab shows the results of the query. It indicates that 50 rows were fetched in 0.012 seconds. The results are displayed in a table with two columns: CLIENTNAME and JOINDATE.

CLIENTNAME	JOINDATE
1 Andrews, Hector	24/12/2018
2 Lewis, Brad	14/12/2018
3 Nielsen, Jimmy	01/11/2018
4 English, Mario	21/09/2018
5 Montgomery, Lawrence	01/06/2018
6 Ruiz, Robert	11/05/2018
7 Jackson, Edward	27/03/2018
8 Norman, Katrina	24/03/2018
9 Henderson, Nicole	15/12/2017

Checking the code without where statement it also had values after the current sysdate. Fetched only says 50 rows in 0.0012 second but as soon as we scroll down it adds more.

Eg.

The screenshot shows the SQL Developer interface. The 'Query Builder' tab is active, displaying a query with a comment: '-- Divya Shah', '-- N01315099', '-- Assignment', '-- Question 8'. The query is: `select clientname ||', '|| clientname as clientname, TO_CHAR(clientjoindate,'DD/MM/YYYY') as joindate from clients order by clientjoindate desc;`. The 'Query Result' tab shows 'All Rows Fetched: 206 in 0.102 seconds'. The results table has two columns: CLIENTNAME and JOINDATE. The first 8 rows are shown below.

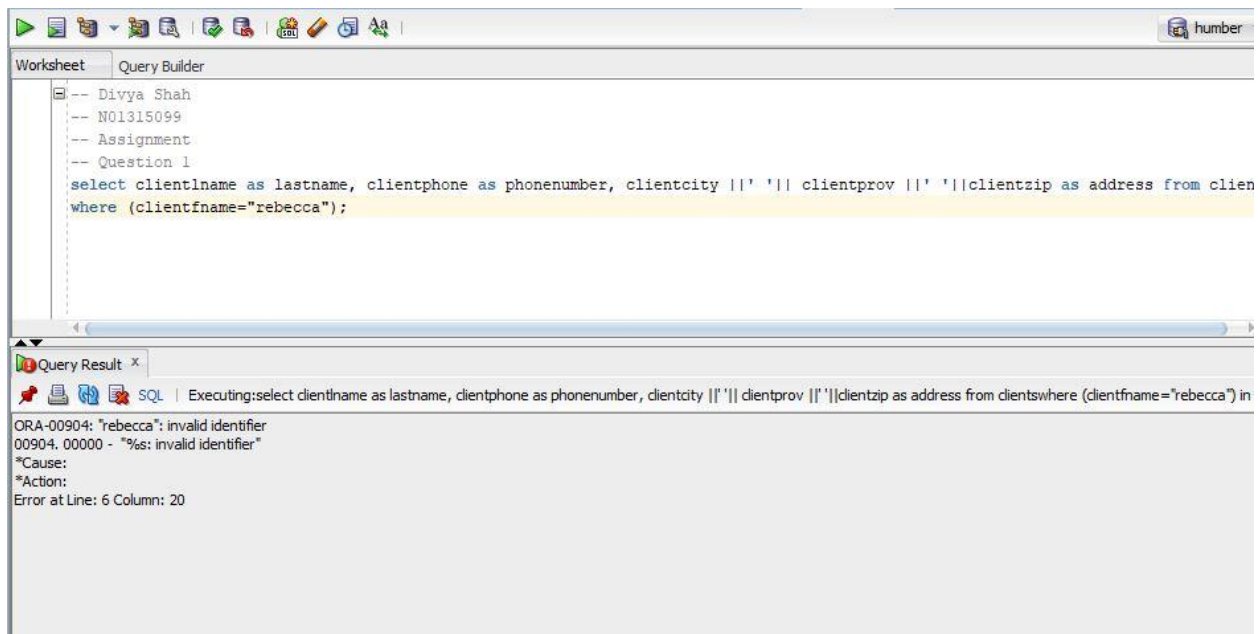
	CLIENTNAME	JOINDATE
1	Andrews, Hector	24/12/2018
2	Lewis, Brad	14/12/2018
3	Nielsen, Jimmy	01/11/2018
4	English, Mario	21/09/2018
5	Montgomery, Lawrence	01/06/2018
6	Ruiz, Robert	11/05/2018
7	Jackson, Edward	27/03/2018
8	Norman, Katrina	24/03/2018

14 days before current date didn't change anything so tried with

Where clientjoindate< SYSDATE-200 which removed anyone 200 days before current date.

The screenshot shows the SQL Developer interface. The 'Query Builder' tab is active, displaying a query with a comment: '-- Divya Shah', '-- N01315099', '-- Assignment', '-- Question 8'. The query is: `select clientname ||', '|| clientname as clientname, TO_CHAR(clientjoindate,'DD/MM/YYYY') as joindate from clients where clientjoindate< SYSDATE-200 order by clientjoindate desc;`. The 'Query Result' tab shows 'Fetched 50 rows in 0.014 seconds'. The results table has two columns: CLIENTNAME and JOINDATE. The first 8 rows are shown below.

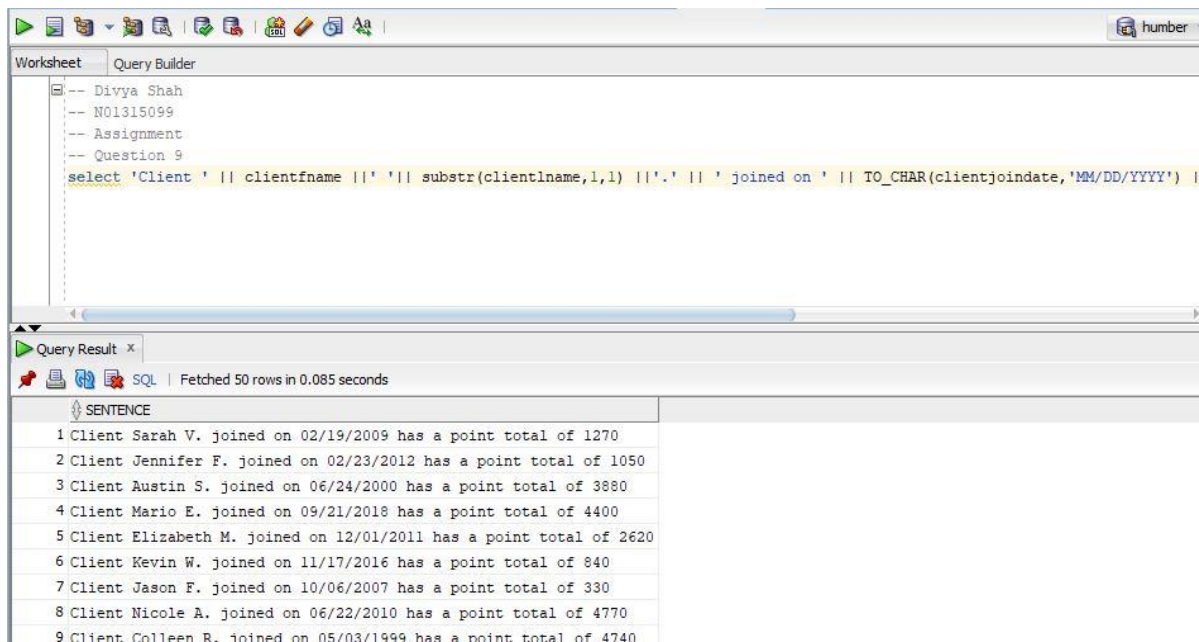
	CLIENTNAME	JOINDATE
1	Henderson, Nicole	15/12/2017
2	Morales, Melissa	22/11/2017
3	Jones, Jennifer	09/11/2017
4	Ewing, Dylan	25/08/2017
5	McClean, Matthew	13/08/2017
6	Brown, Kristen	12/08/2017
7	Pierce, Alexander	04/08/2017
8	Gill, Katherine	26/07/2017



## Q9

Print out a list of sentences where each sentence is about a client. The sentence structure will be like "Client x joined on y and has a point total of z". Where x is the first name and last name initial (using substr function), y is the printed version of the date (using to\_char function) and point total

### Part 1:



### Part 2:

The screenshot shows the SQL Developer interface. The Query Builder window contains the following SQL query:

```
|| ' joined on ' || TO_CHAR(clientjoindate,'MM/DD/YYYY') || ' ' || 'has a point total of ' || clientcredits as sentence from clients;
```

The Query Result window shows the results of the query, fetched in 0.085 seconds. The results are displayed in a table with one column labeled 'SENTENCE'.

SENTENCE
1 Client Sarah V. joined on 02/19/2009 has a point total of 1270
2 Client Jennifer F. joined on 02/23/2012 has a point total of 1050
3 Client Austin S. joined on 06/24/2000 has a point total of 3880
4 Client Mario E. joined on 09/21/2018 has a point total of 4400
5 Client Elizabeth M. joined on 12/01/2011 has a point total of 2620
6 Client Kevin W. joined on 11/17/2016 has a point total of 840
7 Client Jason F. joined on 10/06/2007 has a point total of 330
8 Client Nicole A. joined on 06/22/2010 has a point total of 4770

Code: select 'Client ' || clientfname || ' ' || substr(clientlname,1,1) || ' ' || ' joined on ' || TO\_CHAR(clientjoindate,'MM/DD/YYYY') || ' ' || 'has a point total of ' || clientcredits as sentence from clients;

#### Notes:

The screenshot shows the SQL Developer interface. The Query Builder window contains the following SQL query:

```
-- Divya Shah
-- N01315099
-- Assignment
-- Question 9
select 'client' || clientfname || 'joined on ' || clientjoindate as sentence from client;
```

The Query Result window shows an error message: "ORA-00942: table or view does not exist". The error details are as follows:

```
ORA-00942: table or view does not exist
00942. 00000 - "table or view does not exist"
*Cause:
*Action:
Error at Line: 5 Column: 83
```

Wrote "from client;" instead of clients

Half code:

```
select 'Client ' || clientfname || ' ' || substr(clientlname,1,1) || ' joined on ' || TO_CHAR  
(clientjoindate,'MM/DD/YYYY') as sentence from clients;
```

## Q10

Include a copy of notes taken during your lectures and labs. If you are just taking a picture of your notes, make sure that they are clear and legible.

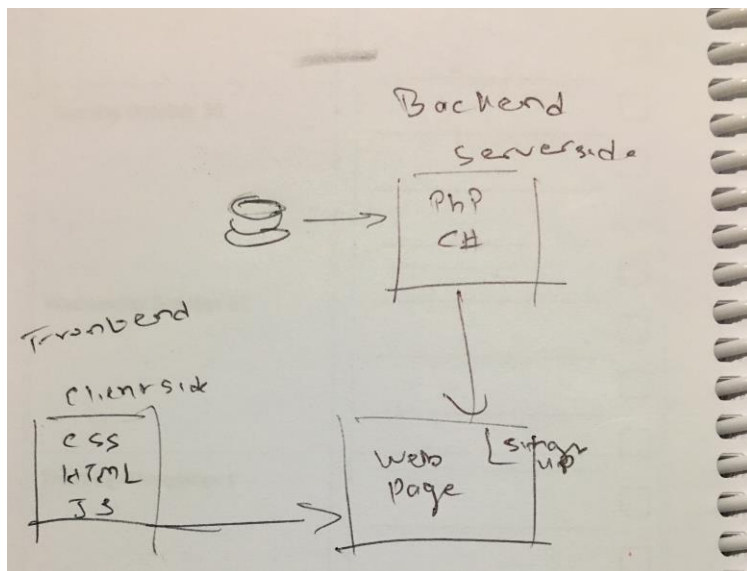
Excel

- less strict
- Redundant

DB

- strict
- oracle
- Sql

Common – Cols and rows



To run query Entr+Ctrl

To run script f5



Select clientid, clientname as first\_name  
from clients where clientcredits > 100

select → To select a column

from → from which sql table

where → condition

as → to change name of column header  
(column alias)

### Concatenation

select clientname || clientname as Name

Divya                      Shah

~~Name~~  
Divyashah

clientname || ' ' || clientname as Name  
~~Name~~  
Divya Shah

#### Function:

Substr(string, position, string\_length)

Eg Substr(clientname, 1, 1)

Output: Divya S

#### TO\_CHAR:

Select TO\_CHAR(clientjoindate, 'MM/DD/YYYY')

Output: 02/11/2009

**Dual Table**—To test functions and mathematical operations

select SYSDATE from dual;

Top 5 recent clients:

Select clientfname, clientcredits, clientjoindate from clients where clientcredits>300 order by  
clientjoindate desc fetch first 5 rows only;

Where clientcredits<4000 and clientfname like 'J%'; (to find clients whose credit is smaller than 4000  
and first name starts with 'J')