Running Additional Queries - Day 2 Lab #4

Lab Objective

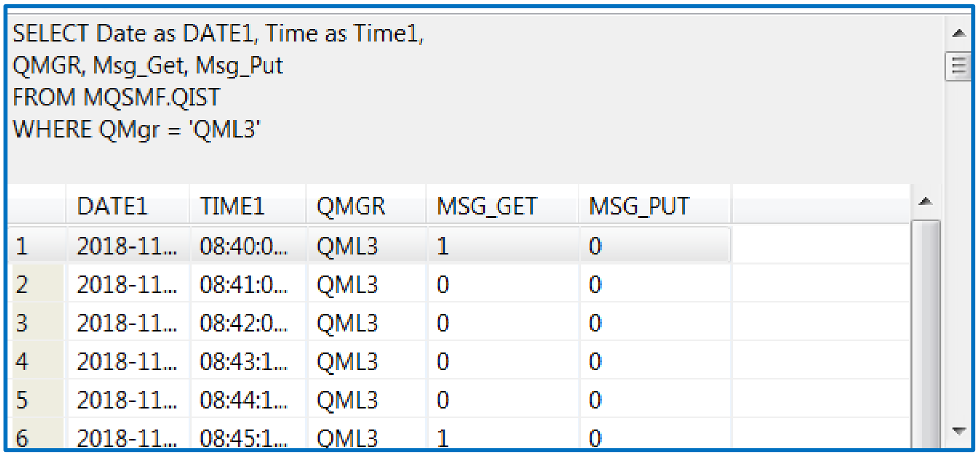
This lab takes you thru the steps to run some additional queries of the primary queries, using Data Studio.

Lab Steps

1) Yesterday we heard about the MQ puts and gets total from the data manager – those are the puts and gets that are passed from the messages manager to the data manager, because they can potentially be successful. So the first query will be to retrieve that information from the data manager table and compare it with the message manager data.
2) In Data Studio, on the MQPERF1_SQL tab, enter the following query:

```
SELECT Date as DATE1, Time as Time1,
       QMGR, Msg_Get, Msg_Put
FROM MQSMF.QIST
WHERE QMgr = 'QML3' ;
```

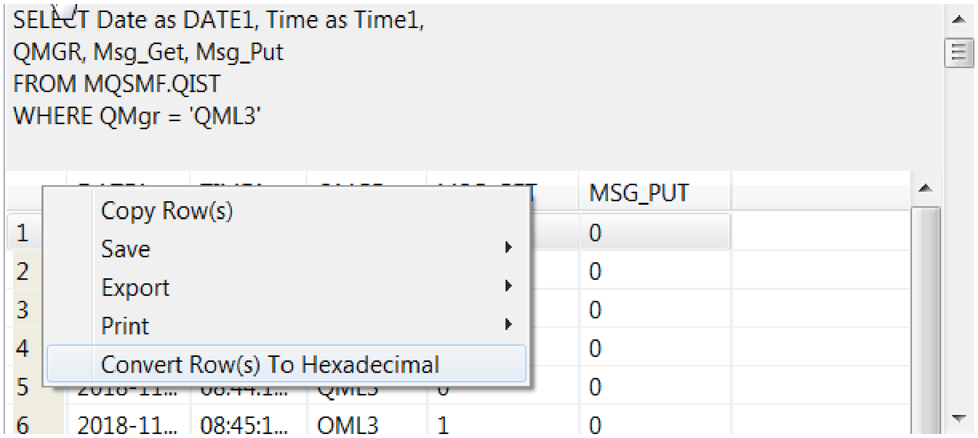
3) Run the query by hitting the green arrow.
4) The results pane should look something like this:



```
SELECT Date as DATE1, Time as Time1,
QMGR, Msg_Get, Msg_Put
FROM MQSMF.QIST
WHERE QMgr = 'QML3'
```

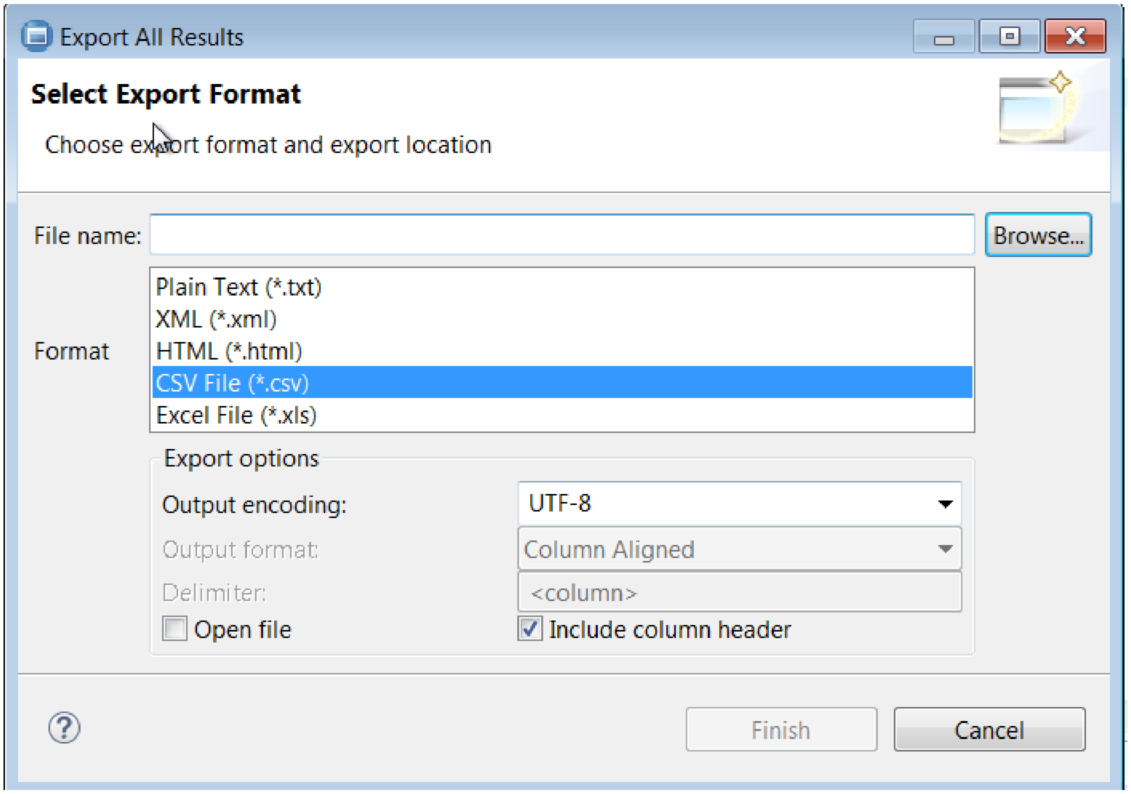
	DATE1	TIME1	QMGR	MSG_GET	MSG_PUT
1	2018-11...	08:40:0...	QML3	1	0
2	2018-11...	08:41:0...	QML3	0	0
3	2018-11...	08:42:0...	QML3	0	0
4	2018-11...	08:43:1...	QML3	0	0
5	2018-11...	08:44:1...	QML3	0	0
6	2018-11...	08:45:1...	QML3	1	0

5) Because there should be a limited number of rows, less than the default of 500, the next step is to export the results set. In the rectangle to the left of the 'DATE1' label, right click and chose Export, then 'All Results (not shown as it could not be captured).



```
SELECT Date as DATE1, Time as Time1,
QMGR, Msg_Get, Msg_Put
FROM MQSMF.QIST
WHERE QMgr = 'QML3'
```

6) The 'Export All Results' pan should be shown, select CSV file and hit the Browse button.



Export All Results

Select Export Format

Choose export format and export location

File name:

Format

- Plain Text (*.txt)
- XML (*.xml)
- HTML (*.html)
- CSV File (*.csv)
- Excel File (*.xls)

Export options

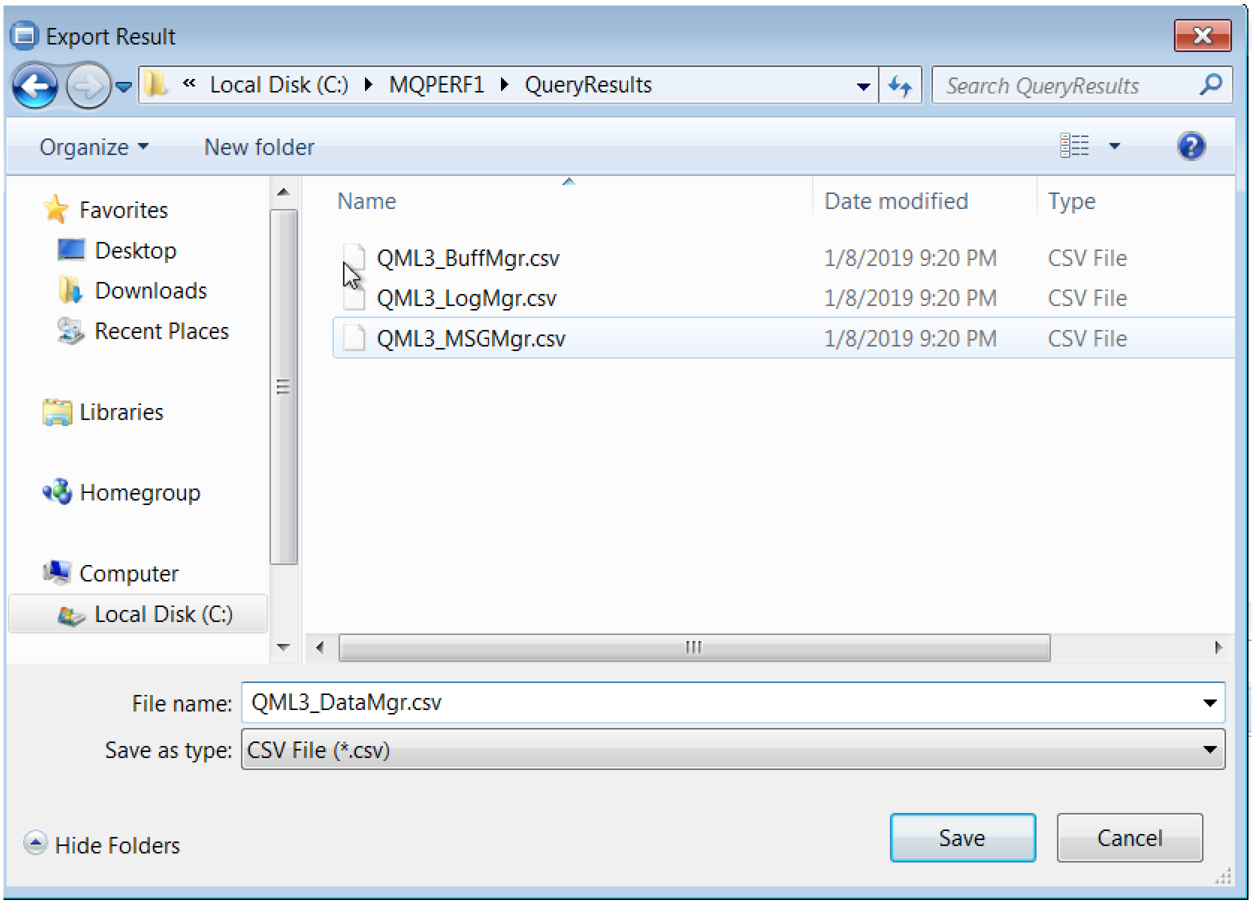
Output encoding: UTF-8

Output format: Column Aligned

Delimiter: <column>

□ Open file ☑ Include column header

7) Navigate to the MQPERF1/QueryResults directory and enter the file name of QML3_DataMgr and hit the Save button.



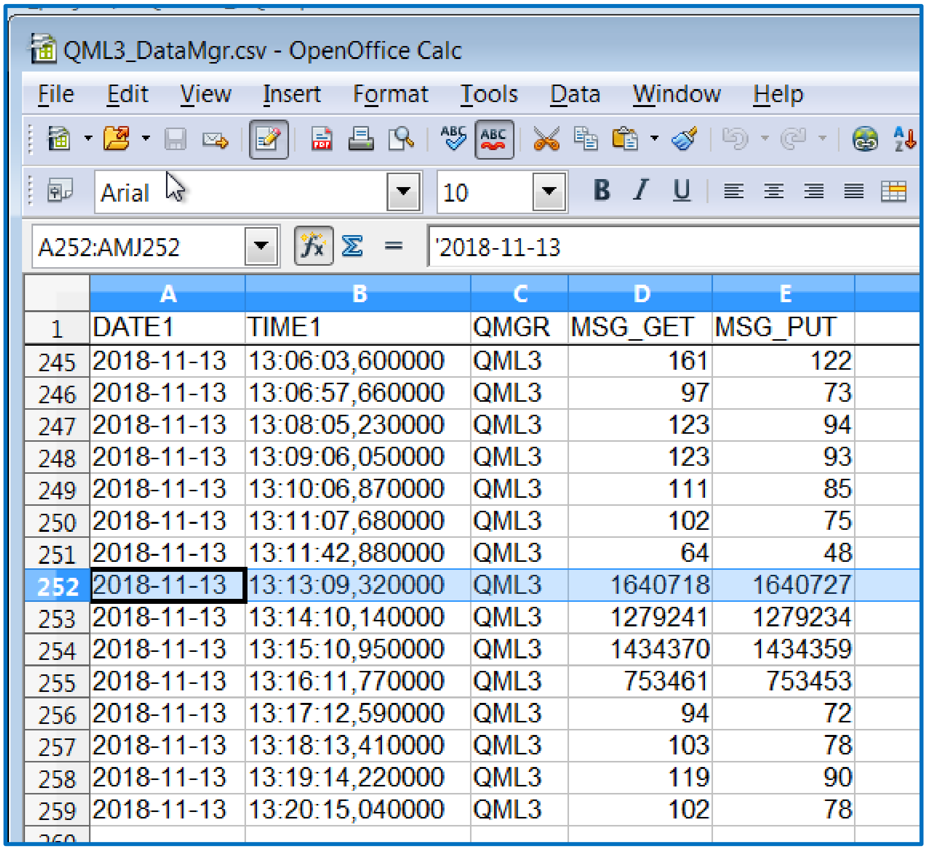
Name	Date modified	Type
QML3_BuffMgr.csv	1/8/2019 9:20 PM	CSV File
QML3_LogMgr.csv	1/8/2019 9:20 PM	CSV File
QML3_MSGMgr.csv	1/8/2019 9:20 PM	CSV File

File name: QML3_DataMgr.csv

Save as type: CSV File (*.csv)

8) That will return to the 'Export all Results' pane, from there hit the 'Finish' button.

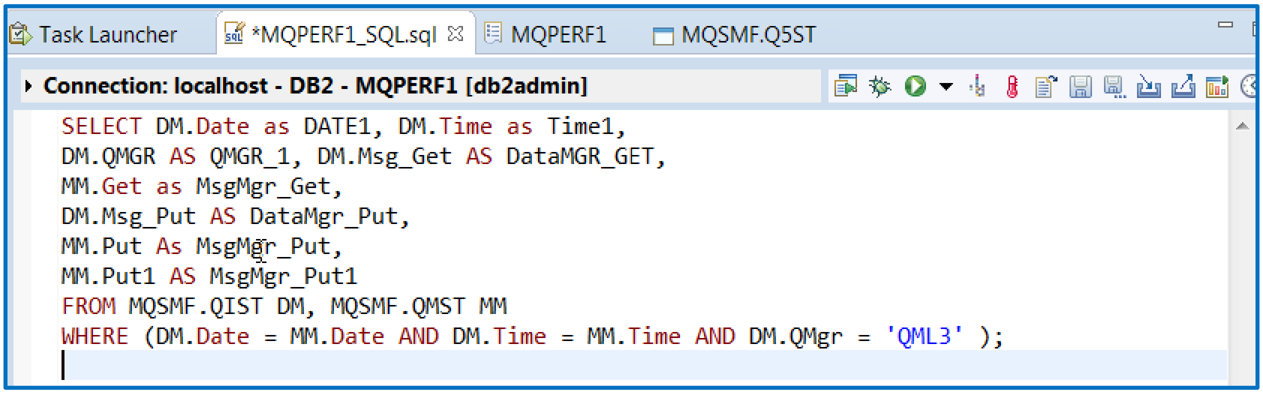
9) In Open Office Calc, open the QML3_DataMgr CSV file. Scrolling towards the bottom, you can see some put and get activity as shown:


QML3_DataMgr.csv - OpenOffice Calc
File Edit View Insert Format Tools Data Window Help
Arial
10
A252:AMJ252
'2018-11-13

	A	B	C	D	E
1	DATE1	TIME1	QMGR	MSG_GET	MSG_PUT
245	2018-11-13	13:06:03,600000	QML3	161	122
246	2018-11-13	13:06:57,660000	QML3	97	73
247	2018-11-13	13:08:05,230000	QML3	123	94
248	2018-11-13	13:09:06,050000	QML3	123	93
249	2018-11-13	13:10:06,870000	QML3	111	85
250	2018-11-13	13:11:07,680000	QML3	102	75
251	2018-11-13	13:11:42,880000	QML3	64	48
252	2018-11-13	13:13:09,320000	QML3	1640718	1640727
253	2018-11-13	13:14:10,140000	QML3	1279241	1279234
254	2018-11-13	13:15:10,950000	QML3	1434370	1434359
255	2018-11-13	13:16:11,770000	QML3	753461	753453
256	2018-11-13	13:17:12,590000	QML3	94	72
257	2018-11-13	13:18:13,410000	QML3	103	78
258	2018-11-13	13:19:14,220000	QML3	119	90
259	2018-11-13	13:20:15,040000	QML3	102	78

10) While we can manually compare these values with the equivalent Message Manager data, it would be easier to craft a query to associate the data from the two tables.

11) Returning to our query pane, a new query will be created to associate the values from the two tables. Note that the text for this query is in a text file in the Queries directory under the MQPERF1 directory:

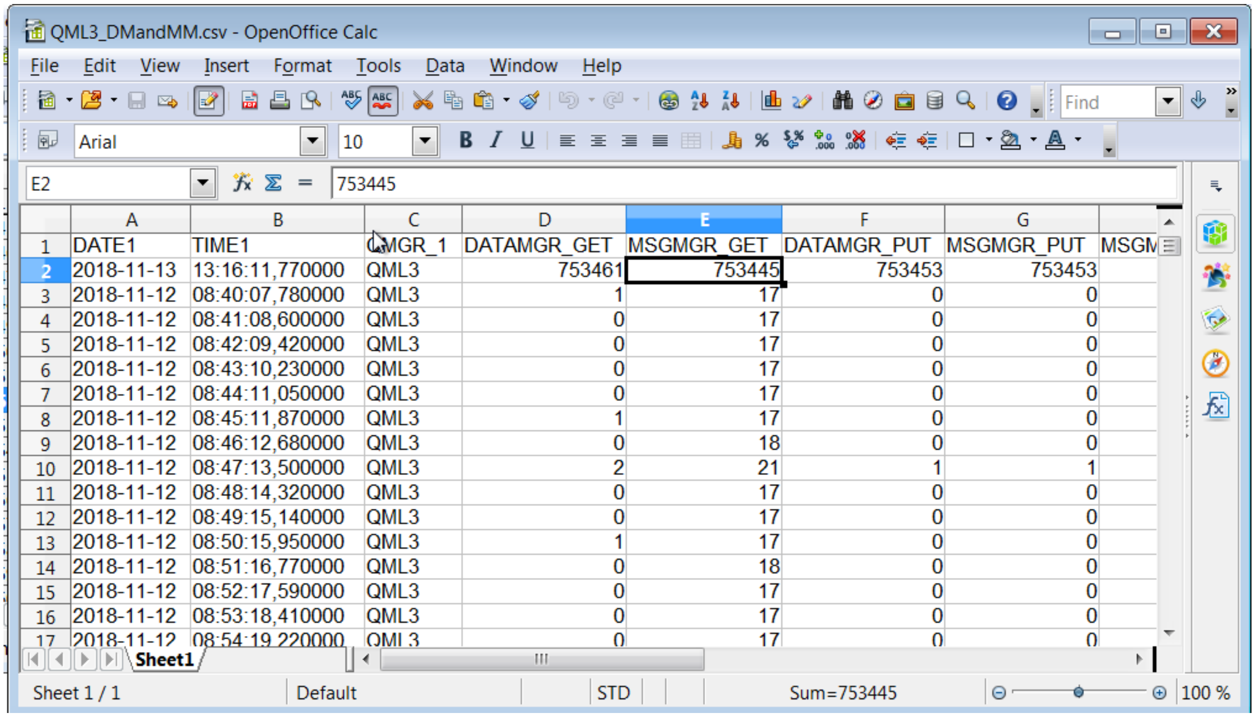


```
SELECT DM.Date as DATE1, DM.Time as Time1,
DM.QMGR AS QMGR_1, DM.Msg_Get AS DataMGR_GET,
MM.Get as MsgMgr_Get,
DM.Msg_Put AS DataMgr_Put,
MM.Put As MsgMgr_Put,
MM.Put1 AS MsgMgr_Put1
FROM MQSMF.QIST DM, MQSMF.QMST MM
WHERE (DM.Date = MM.Date AND DM.Time = MM.Time AND DM.QMgr = 'QML3' );
```

12) Run the query and export the results as illustrated above, call the exported file QML3_DMandMM.

13)

14) Opening the file with Open Office shows the following:



QML3_DMandMM.csv - OpenOffice Calc
File Edit View Insert Format Tools Data Window Help
Find
Arial
10
Sheet1
Sheet 1 / 1
Default
STD
100 %

E2 753445

	A	B	C	D	E	F	G	
1	DATE1	TIME1	QMGR_1	DATAMGR_GET	MSGMGR_GET	DATAMGR_PUT	MSGMGR_PUT	MSGM
2	2018-11-13	13:16:11,770000	QML3	753461	753445	753453	753453	
3	2018-11-12	08:40:07,780000	QML3	1	17	0	0	
4	2018-11-12	08:41:08,600000	QML3	0	17	0	0	
5	2018-11-12	08:42:09,420000	QML3	0	17	0	0	
6	2018-11-12	08:43:10,230000	QML3	0	17	0	0	
7	2018-11-12	08:44:11,050000	QML3	0	17	0	0	
8	2018-11-12	08:45:11,870000	QML3	1	17	0	0	
9	2018-11-12	08:46:12,680000	QML3	0	18	0	0	
10	2018-11-12	08:47:13,500000	QML3	2	21	1	1	
11	2018-11-12	08:48:14,320000	QML3	0	17	0	0	
12	2018-11-12	08:49:15,140000	QML3	0	17	0	0	
13	2018-11-12	08:50:15,950000	QML3	1	17	0	0	
14	2018-11-12	08:51:16,770000	QML3	0	18	0	0	
15	2018-11-12	08:52:17,590000	QML3	0	17	0	0	
16	2018-11-12	08:53:18,410000	QML3	0	17	0	0	
17	2018-11-12	08:54:19,220000	QML3	0	17	0	0	

Sum=753445

15) It may be necessary to sort the data, but as you can see the number of MQPUTs for both sources in the 13:16 rows, while the number of message manager gets is slightly larger than the data manager. Because we know the tasks that were running, this slight difference is the normal get with wait processing that goes unfulfilled by the OEMPUT program.

16) On some rows, the number of MQPUTs and MQPUT1 from the message manager will need to be added to compare to the data manager put count, that is something that can be added to the query or done within the spreadsheet.

17) Congratulations, you are now an expert!