Laboratory 7
SQL Queries – Part 2

References
Lecture Notes: Topic 6
Elmasri and Navathe, 2017: Chapter 7

Exercise 1 – SQL – More Aggregate Function Queries

1. Write an SQL query that shows how many events each of the business sponsors have sponsored.

```
BUSINE BUSINESSNAME                           Number of Events Sponsored
------ ------------------------------------------------------------------
SP0005 Helga's Haberdashery                              2
SP0002 Gordon's Greengrocers                             1
SP0001 Local Town IGA                                    4
SP0004 Fisherman's Bend Bottle Shop                      1
SP0003 Dehlia's Deli                                     2
```

2. Write an SQL query to determine which businesses have sponsored more than three events.

```
BUSINE BUSINESSNAME
------ -------------------------------
SP0001 Local Town IGA
```

3. For each event, retrieve the total number of tickets sold by the promoters

```
EVENTI EVENTNAME                                            TOTAL
------ --------------------------------------------------- ----------
E00009 Local Town Council Christmas Function                180
E00016 Tappin Tots                                          175
E00022 Swing Band Night                                      76
E00005 Pearson's Breakfast Meeting                            0
E00021 A Comedy of Errors                                     0
E00002 Bayman's Bi-Annual Meeting                             0
E00007 Fisherman's Bend Council Christmas Function            0
E00006 Market Hill Council Christmas Function                 0
E00003 Awards Night                                         200
E00013 Macbeth                                             1183
E00014 Mimed Moments                                        130
E00008 Football Fundraiser                                  320
E00018 Fame                                                 712
E00020 Romeo and Juliet                                     622
E00001 Accountant's Annual 2016                               0
E00004 Awards Night                                         200
E00017 The Wizard of Oz                                     770
E00015 Bopping Ballet                                       310
E00012 Athletics Fundraiser                                 291
E00023 Baroque Beauty                                         5
E00024 Bee Keepers' Annual Meeting                            0
E00010 High St Traders Christmas Function                   120
```

```
E00011 Accountant's Annual 2017                                    0
E00019 Accountant's Annual 2018                                    0

24 rows selected.
```

4.   For each event, retrieve the promoter that has sold the highest number of tickets.

```
15 rows selected
```

5.   For each event, list the details of those promoters who have sold more than the average number of tickets sold by promoters for that event.

```
16 rows selected.
```

Exercise 2 – SQL

1.   List all the event clients whose first name or last name starts with 'P'.

```
CLIENTCONTACTFIRSTNAME           CLIENTCONTACTLASTNAME
-------------------------------  ----------------------
Jamie                            Pearson
Penny                            Wong
Jasmina                          Pardede
```

2.   List all the sponsors who have a capital ('M') or a lower-case ('m') in their business name.

```
BUSINESSNAME
-------------------------------
Fisherman's Bend Bottle Shop
```

3.   Display all events held between 2015 and 2017 inclusive.

```
EVENTI EVENTNAME
------ ---------------------------------------------
E00001 Accountant's Annual 2016
E00009 Local Town Council Christmas Function
E00011 Accountant's Annual 2017
E00002 Bayman's Bi-Annual Meeting
E00005 Pearson's Monthly Breakfast Meeting
E00006 Market Hill Council Christmas Function
E00007 Fishermans's Bend Council Christmas Function
E00003 Awards Night
E00008 Football Fundraiser
E00004 Awards Night
E00017 The Wizard of Oz
E00012 Athletics Fundraiser
E00010 High St Traders Christmas Function

13 rows selected.
```

4. Retrieve past events for which security was required, include in the data you retrieve the number of people who were expected to attend the event.

```
EVENTI  EVENTNAME                                VENUECAPACITYREQUIRED
------  ---------------------------------------  --------------------
E00007  Fisherman's Bend Council Christmas Function                300
E00009  Local Town Council Christmas Function                      200
E00003  Awards Night                                               300
E00008  Football Fundraiser                                        500
E00006  Market Hill Council Christmas Function                     150
E00012  Athletics Fundraiser                                       400

6 rows selected.
```

5. Write an SQL statement that increases the cost per day of hiring the *Local Town*, *Town Hall* by 10%.

   Should go from $650 to $715

6. Calculate the number of tickets that have been sold for the *School of Song and Dance's* production of *Fame*.

   712

7. Calculate the number of tickets that remain available for the *School of Song and Dance's* production of the event *Fame*.

   288

8. Write an SQL query that displays the number of events of each event type that have been organised.

```
TYPEOFEVENT                   COUNT(*)
----------------------------  ----------
Function                           8
Conference                         3
Meeting                            3
Play                               4
Concert                            6
```

9. Calculate the cost of venue hire, equipment hire, catering and security for the *Fisherman's Bend Council Christmas Function*. **Hint**: *This is eventID 'E00007'*

```
Total Cost
----------
     21730
```

10. Calculate the cost of venue hire, equipment hire, catering and security for the *Market Masqueraders'* production *Mimed Moments*.

```
Total Cost
----------
      2440
```

11. For each event run in 2016, calculate the cost of venue hire, equipment hire, catering and security.

```
EVENTI  Total Cost
------  ----------
E00001        3893
E00006        9112
E00002        1756
E00003       20850
E00004        4650
E00005        1300

6 rows selected.
```

Character Functions…

The following functions are quite useful in this lab. For more information on Oracle's built-in functions see the Oracle Documentation.

LOWER(x) This function converts the letters in string x to lower case and returns the converted string

UPPER(x) This function converts the letters in string x to upper case and returns the converted string

NVL(x, y) This function returns y if x is null, otherwise it returns x

For more practice try the following from your text book (Elmasri and Navathe, 2014):

Q5.7, Q5.8 and Q5.9 (pgs 141 – 142)