**SQL Assessment Test 2**

**Questions and Expected Results**

Keep in mind there is usually more than one way to answer these questions. For the solutions you can visit this link:

<https://docs.google.com/document/d/1swGZ0RG3KKqWqzmsI_qrMgjJ3lt39mtAJqRSMZy6Z-8/edit?usp=sharing>

OR you can watch the solutions video walkthrough lecture.

These questions start off with the basics and then get continually more difficult.

1. How can you retrieve all the information from the cd.facilities table?
   * **Expected Result should look similar to this (with more rows):**

****

Select \* from db.facalities

1. You want to print out a list of all of the facilities and their cost to members. How would you retrieve a list of only facility names and costs?

**Select name,membercost from cd.facilities**

1. How can you produce a list of facilities that charge a fee to members?
   * Expected Results should have just 5 rows:
   * ****

Select \* from cd.facilities

where membercost > 0

limit 5

1. How can you produce a list of facilities that charge a fee to members, and that fee is less than 1/50th of the monthly maintenance cost? Return the facid, facility name, member cost, and monthly maintenance of the facilities in question.
   * Result is just two rows:

****

select facid,name,membercost,monthlymaintenance

from cd.facilities

where membercost < monthlymaintenance\*0.02 and membercost > 0

1. How can you produce a list of all facilities with the word 'Tennis' in their name?
   * **Expected Result is 3 rows**



select \* from cd.facilities

where name like '%Tennis%'

1. How can you retrieve the details of facilities with ID 1 and 5? Try to do it without using the OR operator.
   * **Expected Result is 2 rows**
   * ****

select \* from cd.facilities

where facid in (1,5)

1. How can you produce a list of members who joined after the start of September 2012? Return the memid, surname, firstname, and joindate of the members in question.
   * **Expected Result is 10 rows (not all are shown below)**
   * 

select memid,surname,firstname,joindate

from cd.members

where joindate > '2012-09-01'

1. How can you produce an ordered list of the first 10 surnames in the members table? The list must not contain duplicates.
   * **Expected Result should be 10 rows if you include GUEST as a last name**
   * ****

**select distinct(surname)**

**from cd.members**

**order by surname**

**limit 10**

1. You'd like to get the signup date of your last member. How can you retrieve this information?
   * **Expected Result**
   * **2012-09-26 18:08:45**

**select joindate from cd.members**

**order by joindate desc**

**limit 1**

1. Produce a count of the number of facilities that have a cost to guests of 10 or more.
   * **Expected Result**
   * **6**

select count(\*) from cd.facilities

where guestcost >= 10

1. Produce a list of the total number of slots booked per facility in the month of September 2012. Produce an output table consisting of facility id and slots, sorted by the number of slots.
   * **Expected Result is 9 rows**
   * ****

SELECT facid, sum(slots) AS "Total Slots"

FROM cd.bookings

WHERE starttime >= '2012-09-01'

AND starttime < '2012-10-01'

GROUP BY facid ORDER BY SUM(slots);

1. Produce a list of facilities with more than 1000 slots booked. Produce an output table consisting of facility id and total slots, sorted by facility id.
   * **Expected Result is 5 rows**
   * ****

SELECT facid, sum(slots) AS "Total Slots"

FROM cd.bookings

GROUP BY facid

having sum(slots) > 1000

ORDER BY facid;

1. How can you produce a list of the start times for bookings for tennis courts, for the date '2012-09-21'? Return a list of start time and facility name pairings, ordered by the time.
   * **Expected Result is 12 rows**
   * 

**select cd.bookings.starttime as start,**

**cd.facilities.name as name**

**from cd.facilities**

**inner join cd.bookings**

**on cd.facilities.facid = cd.bookings.facid**

**where cd.facilities.facid in (0,1)**

**AND cd.bookings.starttime >= '2012-09-21'**

**AND cd.bookings.starttime < '2012-09-22'**

**order by cd.bookings.starttime**

1. How can you produce a list of the start times for bookings by members named 'David Farrell'?
   * **Expected result is 34 rows of timestamps**

**SELECT cd.bookings.starttime**

**FROM cd.bookings**

**INNER JOIN cd.members ON**

**cd.members.memid = cd.bookings.memid**

**WHERE cd.members.firstname='David'**

**AND cd.members.surname='Farrell';**