

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/1swGZ0RG3KKqWqzmsl_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):**

Data Output												Explain	Messages	Notifications
	facid		name		membercost		guestcost		initialoutlay		monthlymaintenance			
	[PK] integer		character varying (100)		numeric		numeric		numeric		numeric			
1		0	Tennis Court 1		5		25		10000		200			
2		1	Tennis Court 2		5		25		8000		200			
3		2	Badminton Court		0		15.5		4000		50			
4		3	Table Tennis		0		5		320		10			

2. 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?

Data Output

Explain








Messages

Notifications

	name character varying (100)	membercost numeric
1	Tennis Court 1	5
2	Tennis Court 2	5
3	Badminton Court	0
4	Table Tennis	0

3. How can you produce a list of facilities that charge a fee to members?

- Expected Results should have just 5 rows:

Data Output		Explain	Messages	Notifications								
	facid [PK] integer		name character varying (100)		membercost numeric		guestcost numeric		initialoutlay numeric		monthlymaintenance numeric	
1		0	Tennis Court 1			5		25		10000		200
2		1	Tennis Court 2			5		25		8000		200
3		4	Massage Room 1			35		80		4000		3000
4		5	Massage Room 2			35		80		4000		3000
5		6	Squash Court			3.5		17.5		5000		80

4. 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:

Data Output Explain Messages Notifications

	facid [PK] integer	name character varying (100)	membercost numeric	monthlymaintenance numeric
1	4	Massage Room 1	35	3000
2	5	Massage Room 2	35	3000

5. How can you produce a list of all facilities with the word 'Tennis' in their name?

- Expected Result is 3 rows

Data Output Explain Messages Notifications

	facid [PK] integer	name character varying (100)	membercost numeric	guestcost numeric	initialoutlay numeric	monthlymaintenance numeric
1	0	Tennis Court 1	5	25	10000	200
2	1	Tennis Court 2	5	25	8000	200
3	3	Table Tennis	0	5	320	10

6. 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

Data Output Explain Messages Notifications

	facid [PK] integer	name character varying (100)	membercost numeric	guestcost numeric	initialoutlay numeric	monthlymaintenance numeric
1	1	Tennis Court 2	5	25	8000	200
2	5	Massage Room 2	35	80	4000	3000

7. 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)

	memid [PK] integer	surname character varying (200)	firstname character varying (200)	joindate timestamp without time zone
1	24	Sarwin	Ramnaresh	2012-09-01 08:44:42
2	26	Jones	Douglas	2012-09-02 18:43:05
3	27	Rumney	Henrietta	2012-09-05 08:42:35
4	28	Farrell	David	2012-09-15 08:22:05
5	29	Worthington-Smyth	Henry	2012-09-17 12:27:15
6	30	Purview	Millicent	2012-09-18 19:04:01
7	33	Tupperware	Hyacinth	2012-09-18 19:32:05
8	35	Hunt	John	2012-09-19 11:32:45

8. 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**

	surname character varying (200)
1	Bader
2	Baker
3	Boothe
4	Butters
5	Coplin
6	Crumpet
7	Dare
8	Farrell
9	Genting
10	GUEST

9. 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**

10. Produce a count of the number of facilities that have a cost to guests of 10 or more.

- **Expected Result**
- **6**

11. 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**

	facid integer		Total Slots bigint
1		5	122
2		3	422
3		7	426
4		8	471
5		6	540
6		2	570
7		1	588
8		0	591
9		4	648

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12. 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**

	facid integer		total_slots bigint
1		0	1320
2		1	1278
3		2	1209
4		4	1404
5		6	1104

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13. 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**

	 start timestamp without time zone	 name character varying (100)	
1	2012-09-21 08:00:00	Tennis Court 1	
2	2012-09-21 08:00:00	Tennis Court 2	
3	2012-09-21 09:30:00	Tennis Court 1	
4	2012-09-21 10:00:00	Tennis Court 2	
5	2012-09-21 11:30:00	Tennis Court 2	
6	2012-09-21 12:00:00	Tennis Court 1	
7	2012-09-21 13:30:00	Tennis Court 1	
8	2012-09-21 14:00:00	Tennis Court 2	
9	2012-09-21 15:30:00	Tennis Court 1	
10	2012-09-21 16:00:00	Tennis Court 2	
11	2012-09-21 17:00:00	Tennis Court 1	
12	2012-09-21 18:00:00	Tennis Court 2	

14. How can you produce a list of the start times for bookings by members named 'David Farrell'?

- **Expected result is 34 rows of timestamps**