/* Welcome to the SQL mini project. For this project, you will use Springboard' online SQL platform, which you can log into through the following link:

https://sql.springboard.com/

Username: student

Password: learn sql@springboard

The data you need is in the "country_club" database. This database contains 3 tables:

- i) the "Bookings" table,
- ii) the "Facilities" table, and
- iii) the "Members" table.

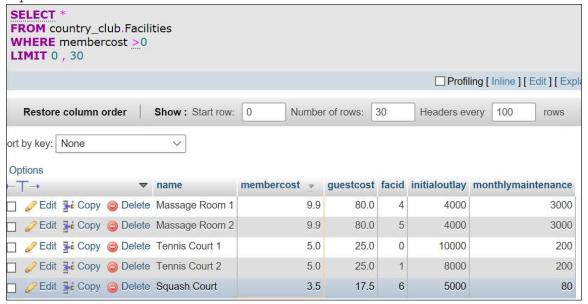
Note that, if you need to, you can also download these tables locally.

In the mini project, you'll be asked a series of questions. You can solve them using the platform, but for the final deliverable, paste the code for each solution into this script, and upload it to your GitHub.

Before starting with the questions, feel free to take your time, exploring the data, and getting acquainted with the 3 tables. */

/* Q1: Some of the facilities charge a fee to members, but some do not. Please list the names of the facilities that do. */

Answer: Massage Room 1, Massage Room 2, Tennis Court 1, Tennis Court 2, Squash Court

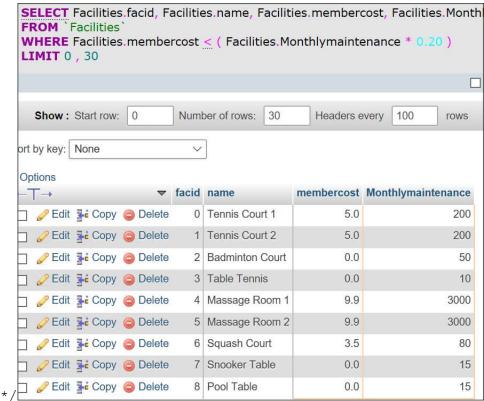


/* Q2: How many facilities do not charge a fee to members? */

Answer: Badminton Court, Table Tennis, Snooker Table, Pool Table SELECT * FROM `Facilities` WHERE membercost = 0.0 **LIMIT** 0 , 30 ☐ Profiling [Inline] [Edit] [Explai Show: Start row: 0 Restore column order Number of rows: 30 Headers every 100 rows ort by key: None **Options** -⊤→ ▼ name membercost v guestcost facid initialoutlay monthlymaintenance 🗌 🥜 Edit 👫 Copy 🔘 Delete Badminton Court 0.0 15.5 2 4000 🦳 🥜 Edit 👫 Copy 🔵 Delete Table Tennis 0.0 320 5.0 3 10 🦳 🥜 Edit 👫 Copy 🔘 Delete Snooker Table 0.0 5.0 7 450 15 🧻 🧷 Edit 👫 Copy 🥥 Delete Pool Table 0.0 5.0 8 400 15

/* Q3: How can you produce a list of facilities that charge a fee to members, where the fee is less than 20% of the facility's monthly maintenance cost? Return the facid, facility name, member cost, and monthly maintenance of the facilities in question.

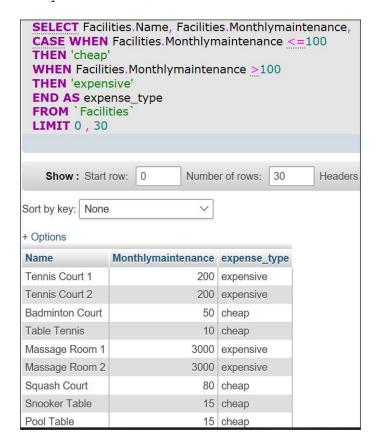
Answer: All 9 facilities



/* Q4: How can you retrieve the details of facilities with ID 1 and 5? Write the query without using the OR operator. */



/* Q5: How can you produce a list of facilities, with each labelled as
'cheap' or 'expensive', depending on if their monthly maintenance cost is
more than \$100? Return the name and monthly maintenance of the facilities
in question. */



/* Q6: You'd like to get the first and last name of the last member(s)
who signed up. Do not use the LIMIT clause for your solution. */

```
SELECT Members.firstname, Members.surname, Members.joindate
FROM `Members`
WHERE Members.firstname != 'GUEST'
ORDER BY Members.joindate DESC
LIMIT 1

+ Options
firstname surname joindate
Darren Smith 2012-09-26 18:08:45
```

/* Q7: How can you produce a list of all members who have used a tennis court?

Include in your output the name of the court, and the name of the member formatted as a single column. Ensure no duplicate data, and order by the member name. $^{\star}/$

SELECT DISTINCT Facilities.name, CONCAT(Members.firstname, ' ', Members.surname)

FROM Members

LEFT JOIN Bookings ON Members.memid = Bookings.memid JOIN Facilities ON Bookings.facid = Facilities.facid

WHERE Facilities.facid = 0
OR Facilities.facid = 1

ORDER BY Members.firstname

Couple of rows of output:

name	CONCAT(Members.firstname, '', Members.surname)	
Tennis Court 2	Anne Baker	
Tennis Court 1	Anne Baker	
Tennis Court 2	Burton Tracy	
Tennis Court 1	Burton Tracy	

/* Q8: How can you produce a list of bookings on the day of 2012-09-14 which will cost the member (or guest) more than \$30? Remember that guests have different costs to members (the listed costs are per half-hour 'slot'), and the guest user's ID is always 0. Include in your output the name of the facility, the name of the member formatted as a single column, and the cost. Order by descending cost, and do not use any subqueries. */

SELECT Facilities.name, CONCAT (Members.firstname, ' ', Members.surname) AS "Member Name",

CASE WHEN Members.memid = 0 THEN (Bookings.slots * Facilities.guestcost)
ELSE (Bookings.slots * Facilities.membercost) END AS session cost

FROM Bookings

LEFT JOIN Members ON Bookings.memid = Members.memid JOIN Facilities ON Bookings.facid = Facilities.facid

WHERE Bookings.starttime LIKE '2012-09-14%' HAVING session_cost > 30.0 ORDER BY session cost DESC

name	Member Name	session_cost 💌	
Massage Room 2	GUEST GUEST	320.0	
Massage Room 1	GUEST GUEST	160.0	
Massage Room 1	GUEST GUEST	160.0	
Massage Room 1	GUEST GUEST	160.0	
Tennis Court 2	GUEST GUEST	150.0	
Tennis Court 1	GUEST GUEST	75.0	
Tennis Court 1	GUEST GUEST	75.0	
Tennis Court 2	GUEST GUEST	75.0	
Squash Court	GUEST GUEST	70.0	
Massage Room 1	Jemima Farrell	39.6	
Squash Court	GUEST GUEST	35.0	
Squash Court	GUEST GUEST	35.0	


```
SELECT
```

(SELECT Facilities.name
FROM Facilities
WHERE Facilities.facid = Bookings.facid) AS facility_name,

(SELECT CONCAT(Members.firstname, ' ', Members.surname)
FROM Members
WHERE Members.memid = Bookings.memid) AS member_name,

CASE WHEN Bookings.memid = 0 THEN
 Bookings.slots *((SELECT Facilities.guestcost
 FROM Facilities
 WHERE Facilities.facid = Bookings.facid))
ELSE
 Bookings.slots *((SELECT Facilities.membercost
 FROM Facilities
 WHERE Facilities.facid = Bookings.facid)) END AS session cost

FROM Bookings

WHERE Bookings.starttime LIKE '2012-09-14%' HAVING session_cost > 30 ORDER BY session cost DESC

facility_name	member_name	session_cost 🔻
Massage Room 2	GUEST GUEST	320.0
Massage Room 1	GUEST GUEST	160.0
Massage Room 1	GUEST GUEST	160.0
Massage Room 1	GUEST GUEST	160.0
Tennis Court 2	GUEST GUEST	150.0
Tennis Court 1	GUEST GUEST	75.0
Tennis Court 1	GUEST GUEST	75.0
Tennis Court 2	GUEST GUEST	75.0
Squash Court	GUEST GUEST	70.0
Massage Room 1	Jemima Farrell	39.6
Squash Court	GUEST GUEST	35.0
Squash Court	GUEST GUEST	35.0

/* Q10: Produce a list of facilities with a total revenue less than 1000. The output of facility name and total revenue, sorted by revenue. Remember that there's a different cost for guests and members! */

SELECT Facilities.name,

CASE WHEN Bookings.memid = 0 THEN SUM(Bookings.slots *
Facilities.guestcost)
 ELSE SUM(Bookings.slots * Facilities.membercost) END AS
session_revenue

FROM Bookings

LEFT JOIN Facilities
ON Bookings.facid = Facilities.facid

GROUP BY Bookings.facid
ORDER BY session revenue DESC

+ Options			
name	session_revenue 💌		
Tennis Court 2	31950.0		
Squash Court	19320.0		
Massage Room 2	18240.0		
Massage Room 1	13899.6		
Tennis Court 1	6600.0		
Pool Table	0.0		
Badminton Court	0.0		
Table Tennis	0.0		
Snooker Table	0.0		