

/\* 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. \*/

```
SELECT name, membercost  
FROM country_club.Facilities  
WHERE membercost >1
```

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

```
SELECT COUNT( membercost )  
FROM country_club.Facilities  
WHERE membercost =0
```

/\* 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. \*/

```
SELECT name, membercost, Facid, monthlymaintenance  
FROM country_club.Facilities  
WHERE membercost < ( .2 * monthlymaintenance )
```

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

```
SELECT name, Facid
FROM country_club.Facilities
WHERE Facid IN (1,5)
```

/\* 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. \*/

```
SELECT name, monthlymaintenance,
CASE WHEN monthlymaintenance <100
THEN 'Cheap'
ELSE 'Expensice'
END AS Price
FROM country_club.Facilities
```

/\* 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 *
FROM country_club.Members
WHERE memid = (
SELECT max( memid )
FROM country_club.Members )
```

/\* 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. \*/

```
SELECT DISTINCT
CASE WHEN B.facid =0
THEN 'Tennis Court 1'
ELSE 'Tennis Court 2'
END AS facid,
CASE WHEN M.surname = 'GUEST'
THEN M.surname
ELSE concat( M.surname, ', ', M.firstname )
END AS member_name
FROM country_club.Bookings B
JOIN country_club.Members M ON B.memid = M.memid
WHERE facid
```

```
IN ( 0, 1 )
ORDER BY member_name, facid
```

/\* 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 F.name AS Facility_name,
CASE
WHEN M.surname = 'GUEST'
THEN M.surname
ELSE CONCAT( M.surname, ', ', M.firstname )
END AS Member_name,
CASE
WHEN M.surname = 'GUEST'
THEN F.guestcost * B.slots
ELSE F.membercost * B.slots
END AS cost
FROM country_club.Bookings B
INNER JOIN country_club.Facilities F
ON B.facid = F.facid
INNER JOIN country_club.Members M
ON B.memid = M.memid
WHERE B.starttime BETWEEN '2012-09-14' AND '2012-09-15'
HAVING cost >30
ORDER BY cost DESC
```

/\* Q9: This time, produce the same result as in Q8, but using a subquery. \*/

```
SELECT F.name AS Facility_name,
CASE
WHEN M.surname = 'GUEST'
THEN M.surname
ELSE CONCAT( M.surname, ', ', M.firstname )
END AS Member_name,
CASE
WHEN M.surname = 'GUEST'
THEN F.guestcost * B.slots
ELSE F.membercost * B.slots
END AS cost
FROM (SELECT *
      FROM country_club.Bookings
      WHERE starttime BETWEEN '2012-09-14' AND '2012-09-15') B
```

```
INNER JOIN country_club.Facilities F
ON B.facid = F.facid
INNER JOIN country_club.Members M
ON B.memid = M.memid
HAVING cost >30
ORDER BY cost DESC
```

/\* 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 F.name,
CASE WHEN B.memid =0 THEN B.slots * F.guestcost
      ELSE B.slots * F.guestcost END AS Revenue
FROM country_club.Facilities F
JOIN country_club.Bookings B ON F.facid = B.facid
GROUP BY F.name
HAVING Revenue <1000
ORDER BY Revenue
```