SQL Assignment

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

```
SELECT * FROM `Facilities` WHERE `membercost` > 0
```

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

```
SELECT *
FROM  `Facilities`
WHERE  `membercost` =0
OR  `membercost` IS NULL
```

/* 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 `facid`,`name`,`membercost`,`monthlymaintenance`
FROM  `Facilities`
WHERE  `membercost` < ( (
`monthlymaintenance` /100
) *20 )
```

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

```
SELECT *
FROM  `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  'Expensive'
ELSE  'Cheap' END AS Cheap_Expensive
FROM  `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 `firstname`,`surname`,`joindate` FROM `Members` WHERE joindate = (SELECT
MAX(joindate) FROM 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 CONCAT(M.firstname," ", M.surname) as Member,F.name  FROM Bookings
B,Facilities F,Members M where
M. memid = B. memid AND
F. facid = B.facid AND
F. name like 'Tennis Court%'

/* 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 M.firstname "Member_Name",F.name "Facility_Name", F.guestcost * B.slots
"Member_cost" FROM Facilities F,Bookings B, Members M WHERE B.facid = F.facid AND
M.memid = B.memid AND
M.memid = 0 AND
B.starttime > '2012-09-14' AND
B.starttime < '2012-09-15' AND
(F.guestcost * B.slots ) > 30

UNION

SELECT M.firstname "Member_Name",F.name "Facility_Name", F.membercost * B.slots
"Member_cost" FROM Facilities F,Bookings B, Members M WHERE B.facid = F.facid AND
M.memid = B.memid AND
M.memid <> 0 AND
B.starttime > '2012-09-14' AND
B.starttime < '2012-09-15' AND
(F.membercost * B.slots ) > 30
```

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

/* 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 AS name, sum(
```

```
CASE WHEN Bookings.memid =0
THEN Facilities.guestcost * Bookings.slots
ELSE Facilities.membercost * Bookings.slots
END ) AS revenue
FROM Facilities
JOIN Bookings ON Facilities.facid = Bookings.facid
GROUP BY 1
having revenue <1000
```