PostgreSQL Exercises

Previous Exercise

Home / Joins / Self2

Next Exerci

Produce a list of all members, along with their recommender

Question

How can you output a list of all members, including the individual who recommended them (if any)? Ensure that results are ordered by (surname, firstname).

Schema reminder ▲

cd.members

memid	integer
surname	character varying(200)
firstname	character varying(200)
address	character varying(300)
zipcode	integer
telephone	character varying(20)
recommendedby	integer
joindate	timestamp

cd.bookings

facid	integer
memid	integer
starttime	timestamp
slots	integer

cd.facilities

facid	integer
name	character varying(100)
membercost	numeric
guestcost	numeric
initialoutlay	numeric
monthlymaintenance	numeric

Expected Results

memfname	memsname	recfname
Florence	Bader	Ponder
Anne	Baker	Ponder
Timothy	Baker	Jemima
Tim	Boothe	Tim
Gerald	Butters	Darren
Joan	Coplin	Timothy
Erica	Crumpet	Tracy
Nancy	Dare	Janice
David	Farrell	
Jemima	Farrell	

Your Answer

Hint Help Save Run Query

```
select mems.first
```

Answers and Discussion Hide

```
select mems.firstname as memfname, mems.surname as memsname, recs.firstname as recfname, recs.
urname as recsname
        from
                cd.members mems
                left outer join cd.members recs
                        on recs.memid = mems.recommendedby
order by memsname, memfname;
```

Let's introduce another new concept: the `LEFT OUTER JOIN`. These are best explained by the way in which they diffe from inner joins. Inner joins take a left and a right table, and look for matching rows based on a join condition (`ON`). Wh the condition is satisfied, a joined row is produced. A `LEFT OUTER JOIN` operates similarly, except that if a given row on the left hand table doesn't match anything, it still produces an output row. That output row consists of the left han table row, and a bunch of `NULLS` in place of the right hand table row.

This is useful in situations like this question, where we want to produce output with optional data. We want the names of all members, and the name of their recommender *if that person exists*. You can't express that properly with an inne join.

As you may have guessed, there's other outer joins too. The `RIGHT OUTER JOIN` is much like the `LEFT OUTER JOIN` except that the left hand side of the expression is the one that contains the optional data. The rarely-used `FULL OUTE JOIN` treats both sides of the expression as optional.

Previous Exercise

Home / Joins / Self2

Next Exerci