

A photograph of a modern office interior, featuring a long conference table and several ergonomic chairs. The room has large windows on the right side, offering a view of a cityscape. The image is overlaid with a semi-transparent blue filter. The text "LEFT JOIN" is centered in the middle of the image.

LEFT JOIN

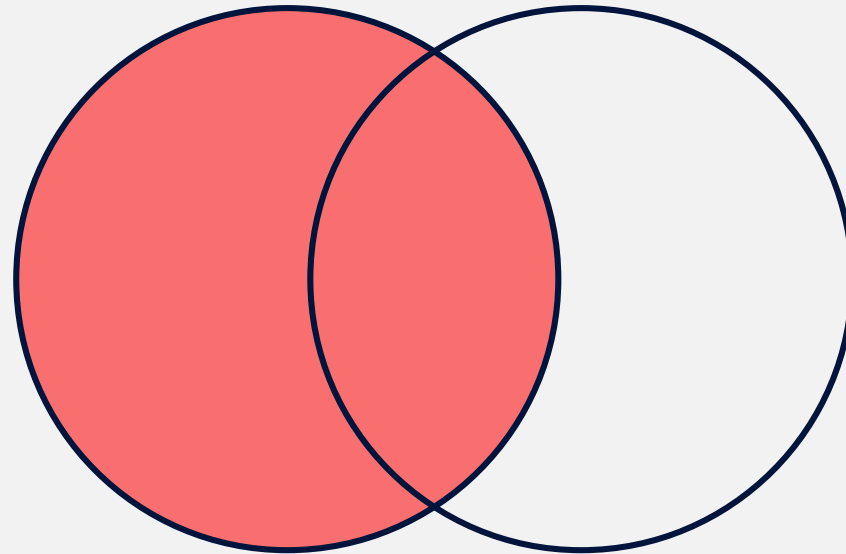
LEFT JOIN



LEFT JOIN

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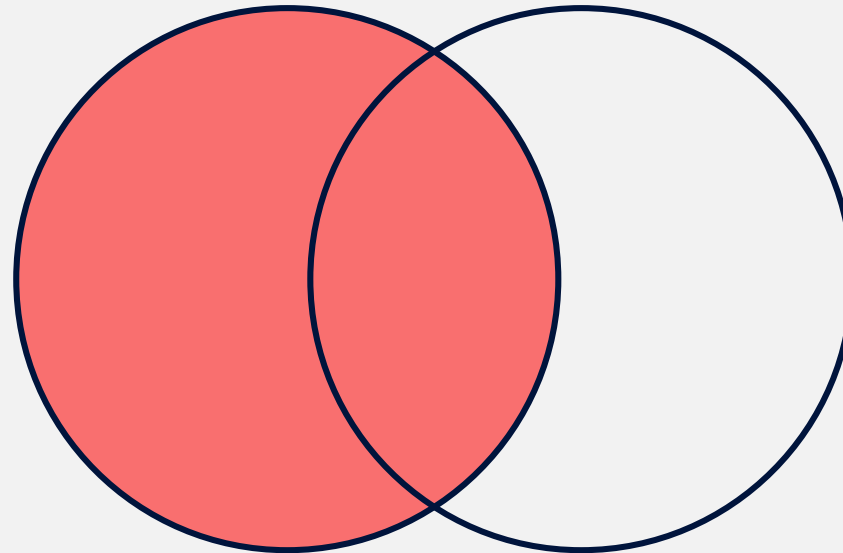
dept_manager_dup

dept_no CHAR(4)

emp_no INT

from_date DATE

to_date DATE



departments_dup

dept_no CHAR(4)

dept_name VARCHAR(40)

LEFT JOIN

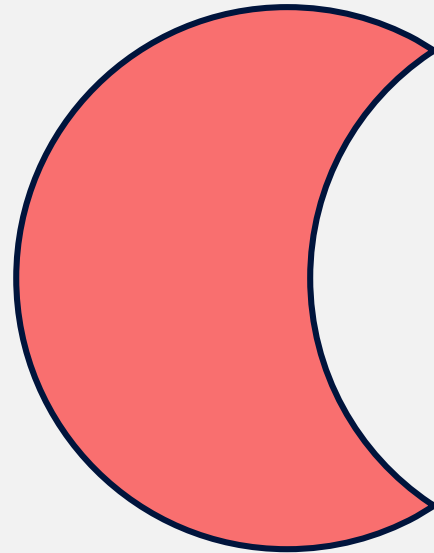
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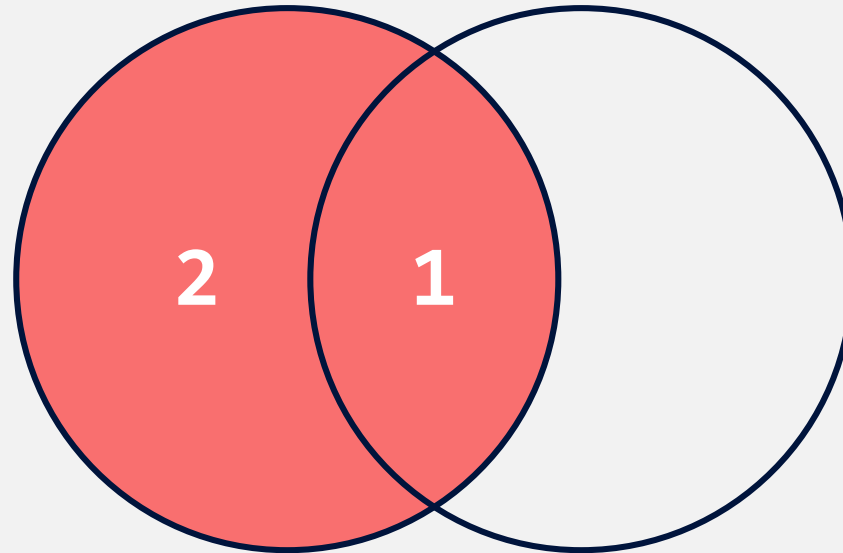
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- 1) all matching values of the two tables +
- 2) all values from the left table that match no values from the right table

LEFT JOIN

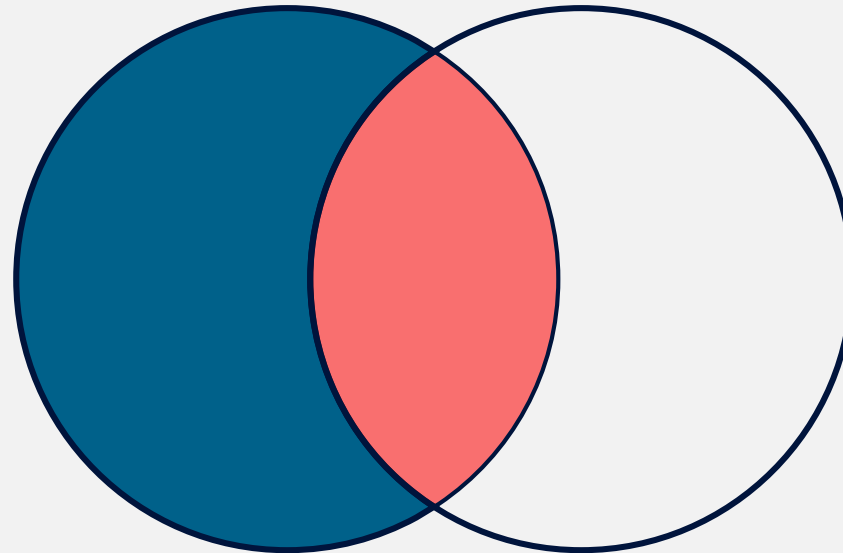
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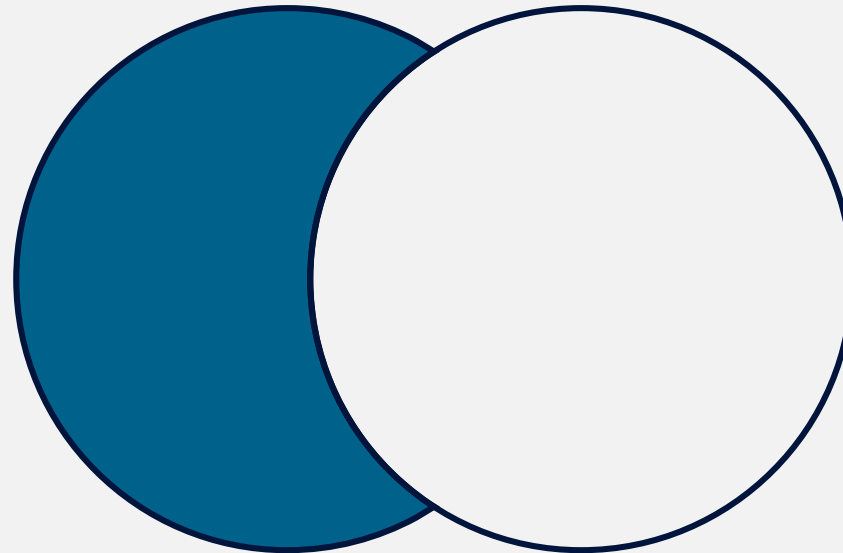
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when working with left joins, the order in which you join tables *matters*

LEFT JOIN

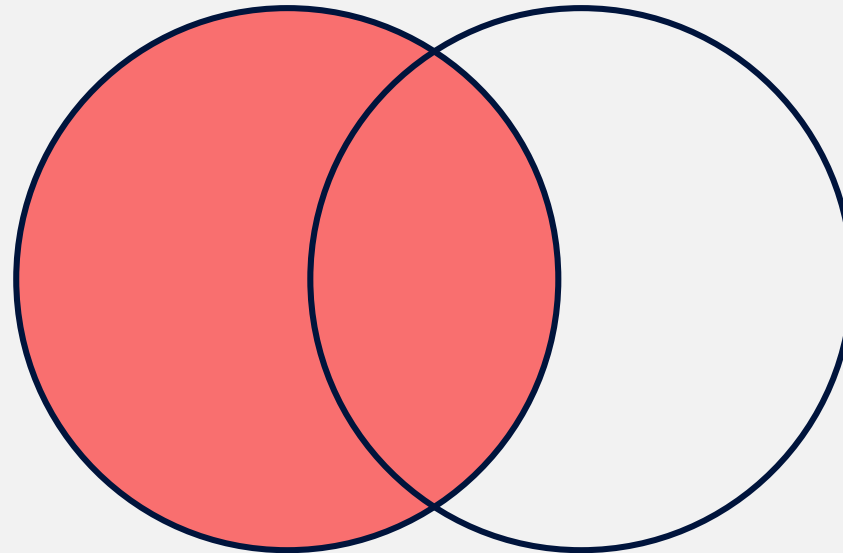
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dept_no CHAR(4)

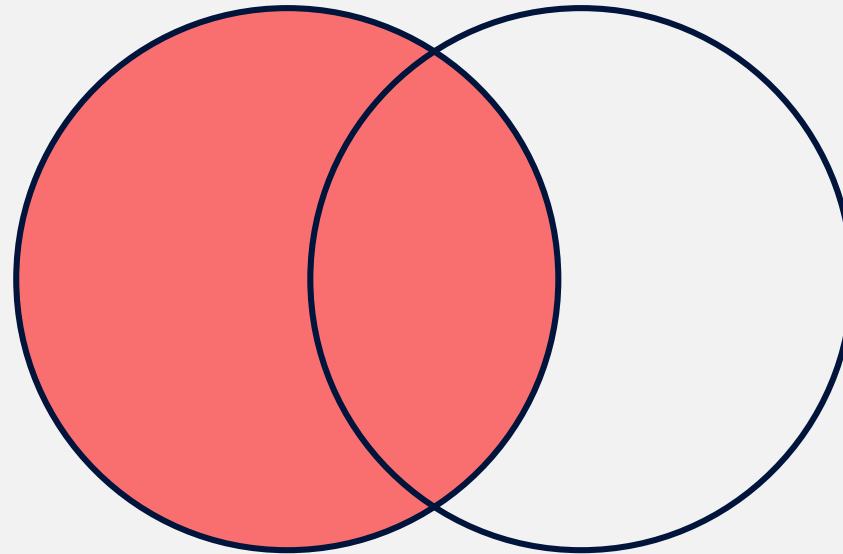
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LEFT JOIN

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from_date DATE

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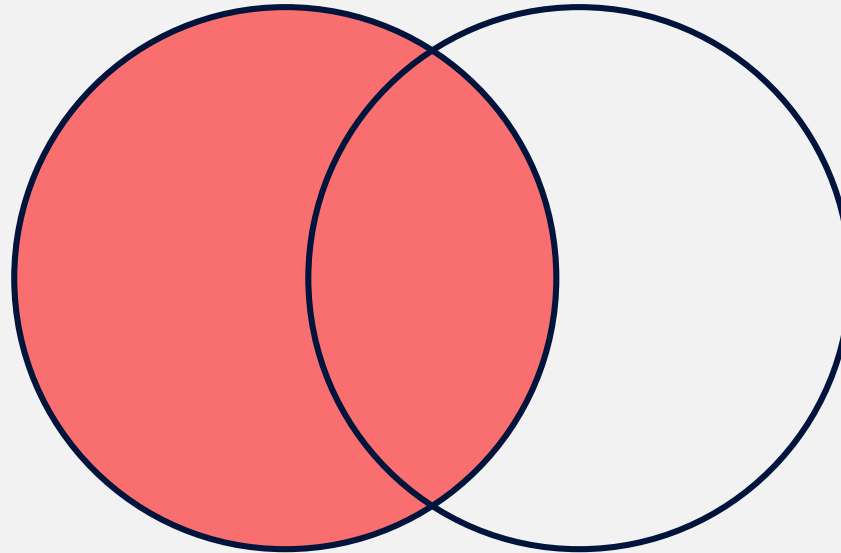
departments_dup

dept_no CHAR(4)

dept_name VARCHAR(40)

dept_no	dept_name
NULL	Public Relations
d001	Marketing
d003	Human Resources
d004	Production
d005	Development
d006	Quality Management
d007	Sales
d008	Research
d009	Customer Service
d010	NULL
d011	NULL

LEFT JOIN



dept_manager_dup

dept_no CHAR(4)

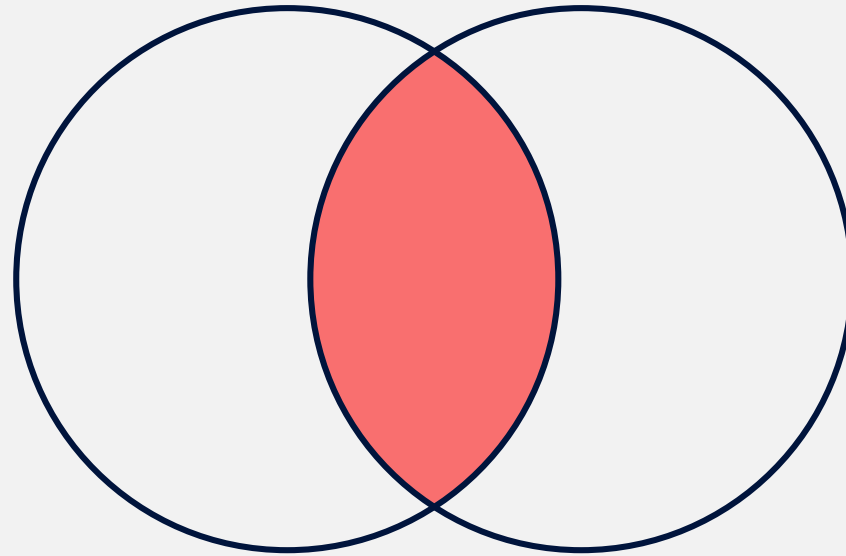
emp_no INT

from_date DATE

to_date DATE

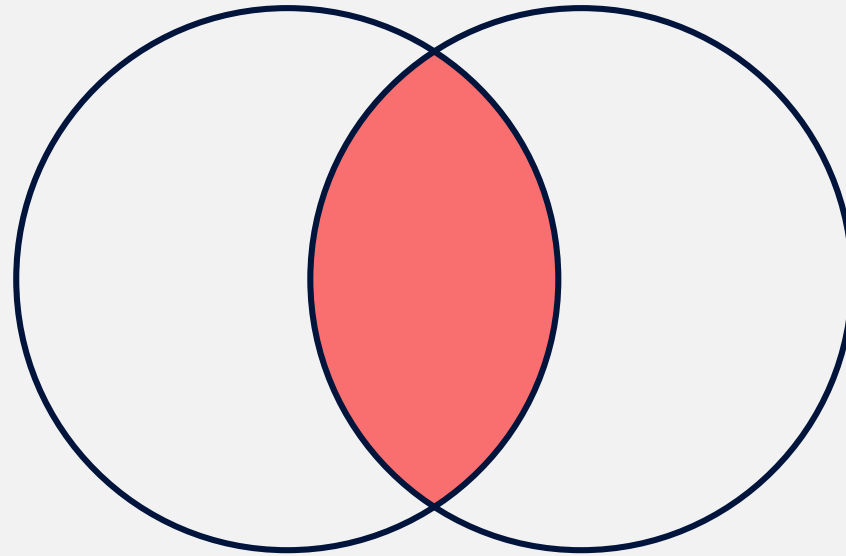
emp_no	dept_no	from_date	to_date
999904	NULL	2017-01-01	NULL
999905	NULL	2017-01-01	NULL
999906	NULL	2017-01-01	NULL
999907	NULL	2017-01-01	NULL
110085	d002	1985-01-01	1989-12-17
110114	d002	1989-12-17	9999-01-01
110183	d003	1985-01-01	1992-03-21
110228	d003	1992-03-21	9999-01-01
110303	d004	1985-01-01	1988-09-09
110344	d004	1988-09-09	1992-08-02
110386	d004	1992-08-02	1996-08-30
110420	d004	1996-08-30	9999-01-01
110511	d005	1985-01-01	1992-04-25
110567	d005	1992-04-25	9999-01-01
110725	d006	1985-01-01	1989-05-06
110765	d006	1989-05-06	1991-09-12
110800	d006	1991-09-12	1994-06-28
110854	d006	1994-06-28	9999-01-01
111035	d007	1985-01-01	1991-03-07
111133	d007	1991-03-07	9999-01-01
111400	d008	1985-01-01	1991-04-08
111534	d008	1991-04-08	9999-01-01
111692	d009	1985-01-01	1988-10-17
111784	d009	1988-10-17	1992-09-08
111877	d009	1992-09-08	1996-01-03
111939	d009	1996-01-03	9999-01-01

LEFT JOIN



INNER join

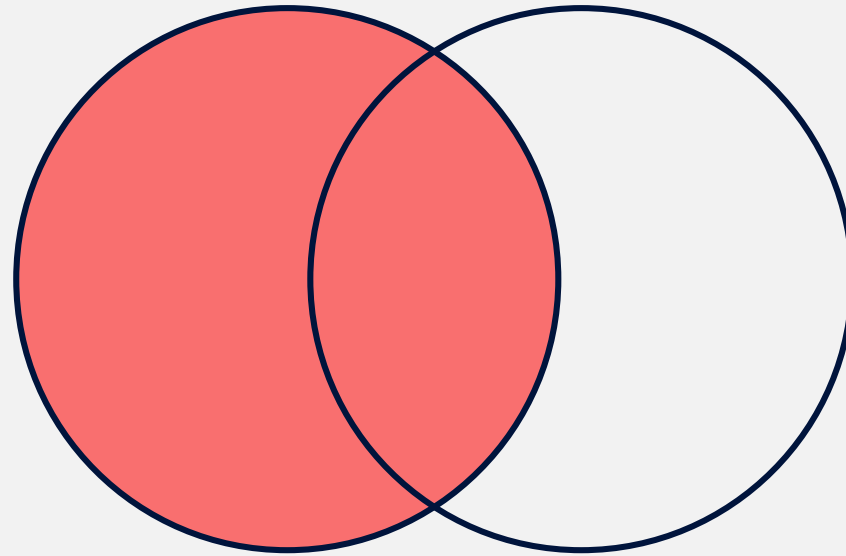
LEFT JOIN



INNER join

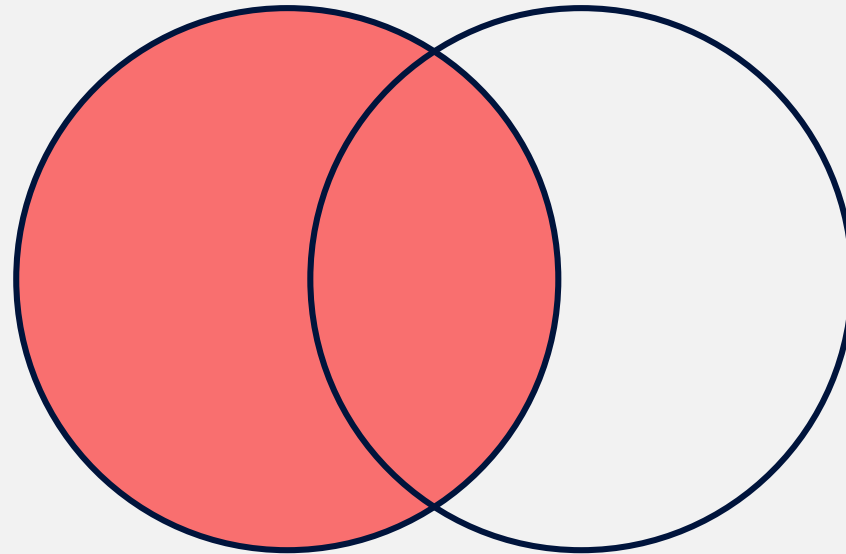
the result set is in the *inner* part of the Venn diagram

LEFT JOIN



LEFT join

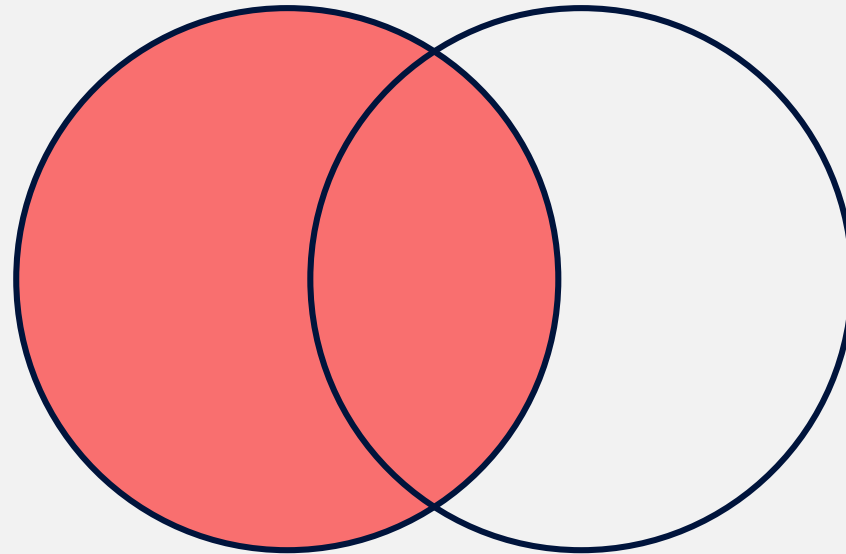
LEFT JOIN



LEFT join

in the output obtained you have data from the *outer* part of the Venn diagram too

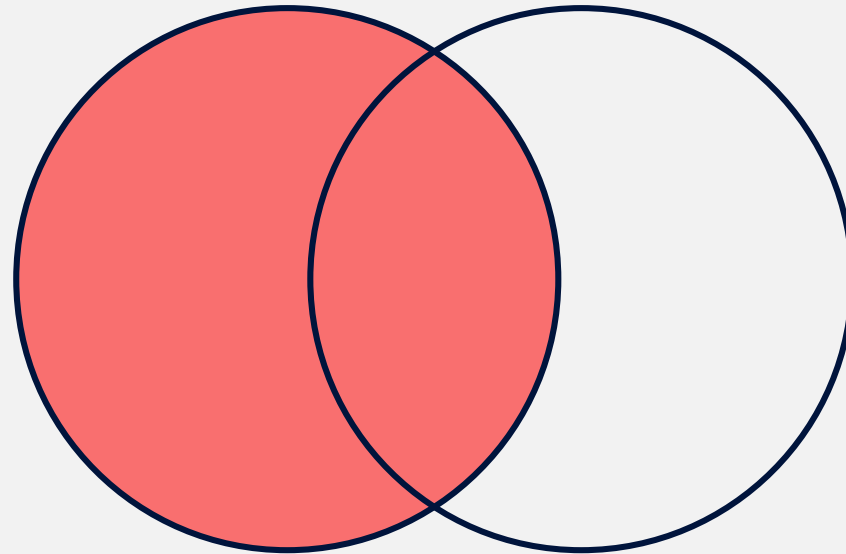
LEFT JOIN



LEFT join = LEFT OUTER join

in the output obtained you have data from the
outer part of the Venn diagram too

LEFT JOIN



LEFT join = LEFT OUTER join

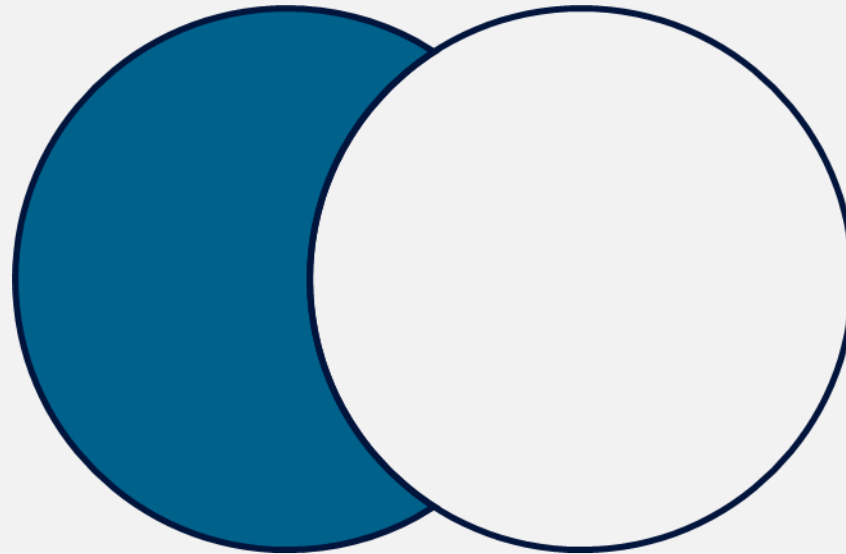
if you are using a left join, it will always be an
OUTER type of join

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- left joins can deliver a list with all records from the left table that do not match any rows from the right table

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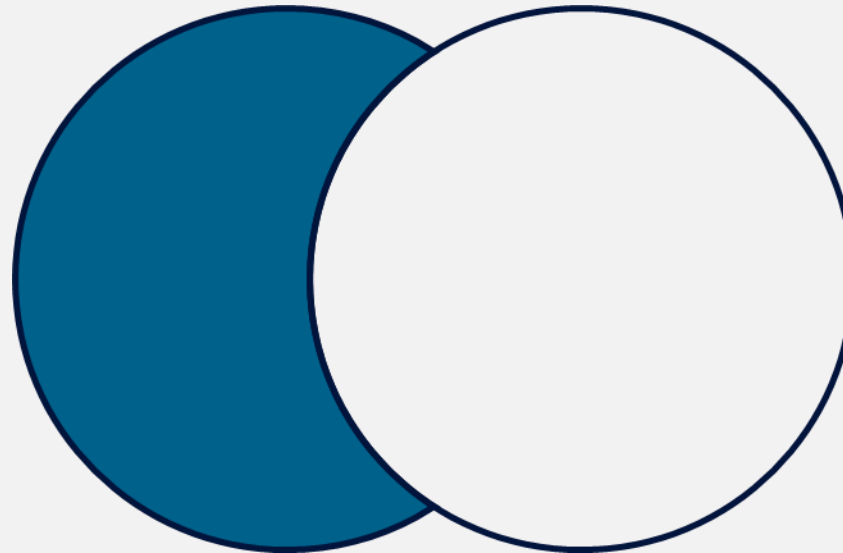
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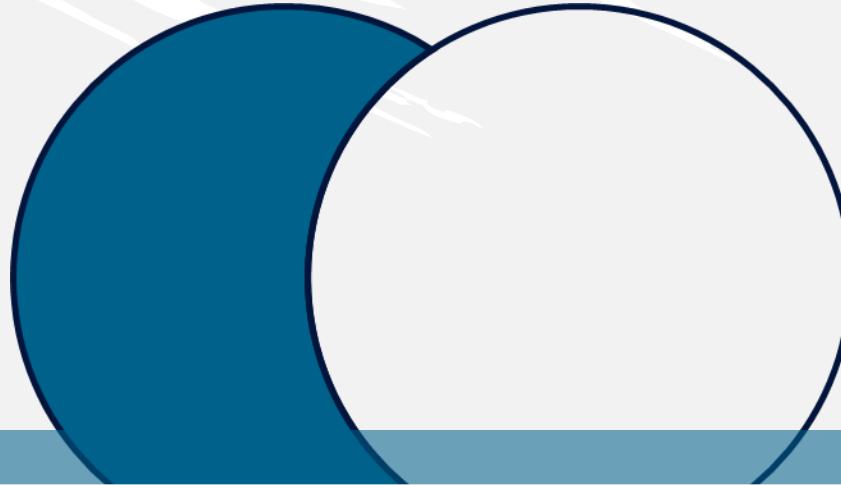
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dept_name VARCHAR(40)

LEFT JOIN

dept_manager_dup

```
dept_no CHAR(4)
emp_no INT
from_date DATE
to_date DATE
```



departments_dup

```
dept_no CHAR(4)
dept_name VARCHAR(40)
```



SQL

```
SELECT
    t1.column_name, t1.column_name, ..., t2.column_name, ...
FROM
    table_1 t1
JOIN
    table_2 t2 ON t1.column_name = t2.column_name
WHERE
    column_name ... IS NULL;
```