



# SQL Self Join

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self join

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applied when a table must join itself

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## ● self join

applied when a table must join itself

- if you'd like to combine certain rows of a table with other rows of the same table, you need a self-join

# INNER JOIN

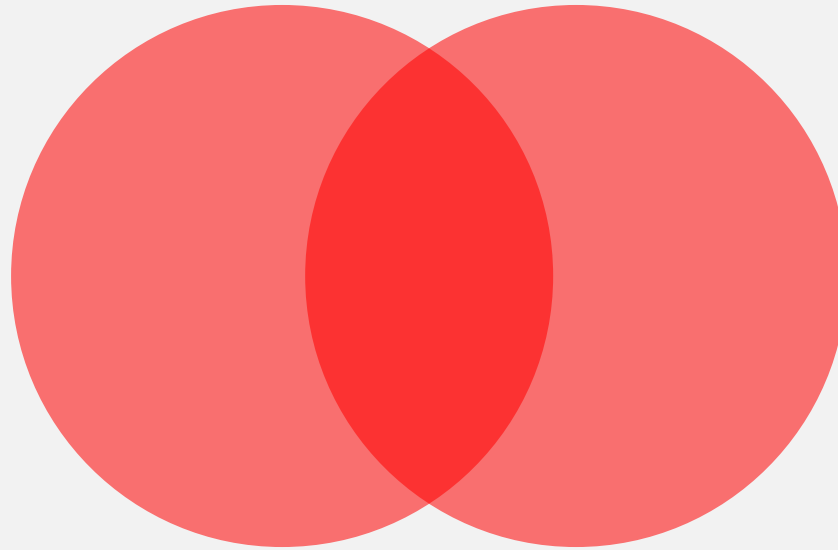
dept\_manager\_dup

dept\_no CHAR(4)

emp\_no INT

from\_date DATE

to\_date DATE



departments\_dup

dept\_no CHAR(4)

dept\_name VARCHAR(40)

Related column: dept\_no

# INNER JOIN

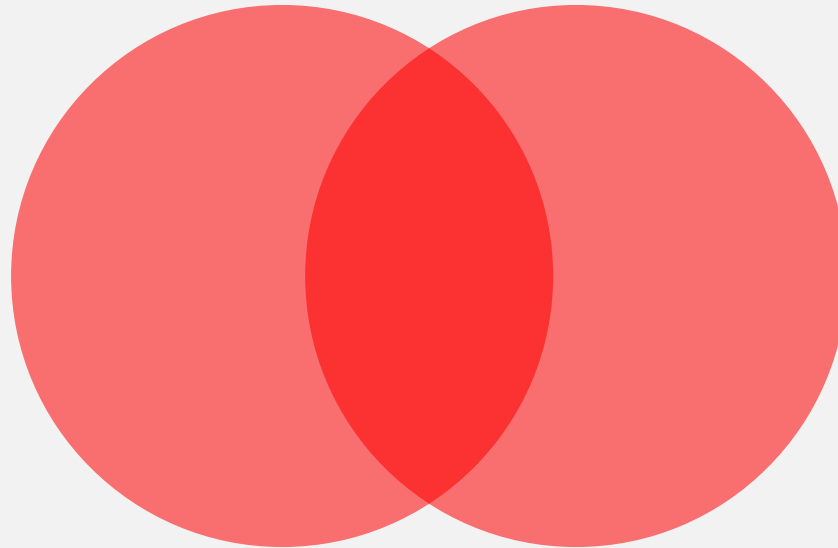
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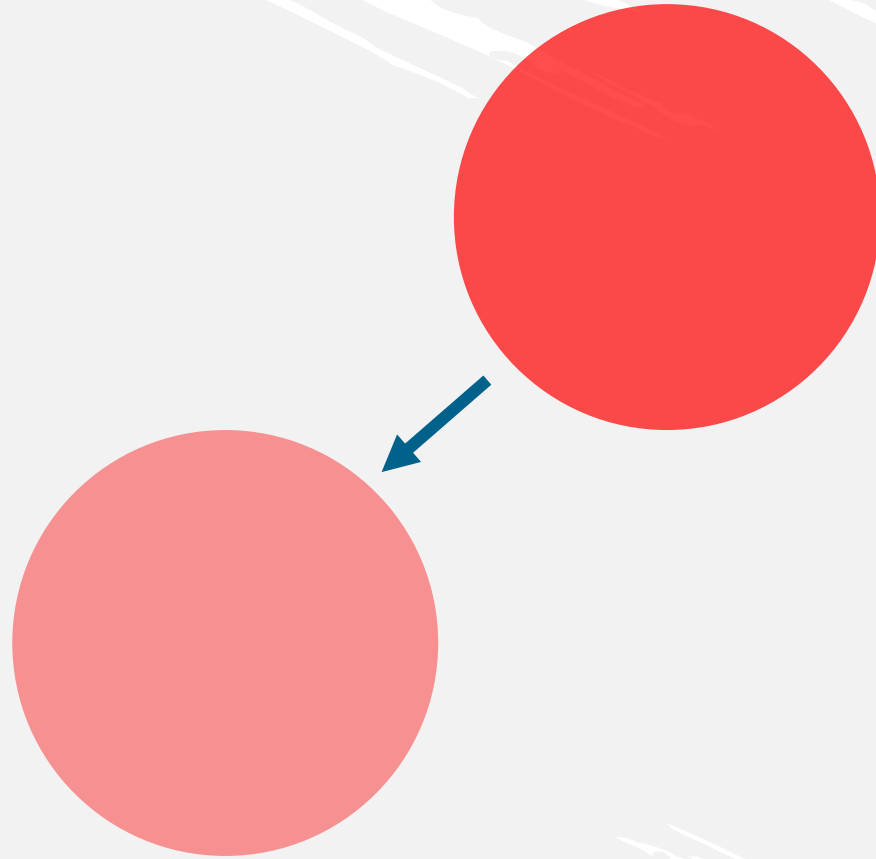


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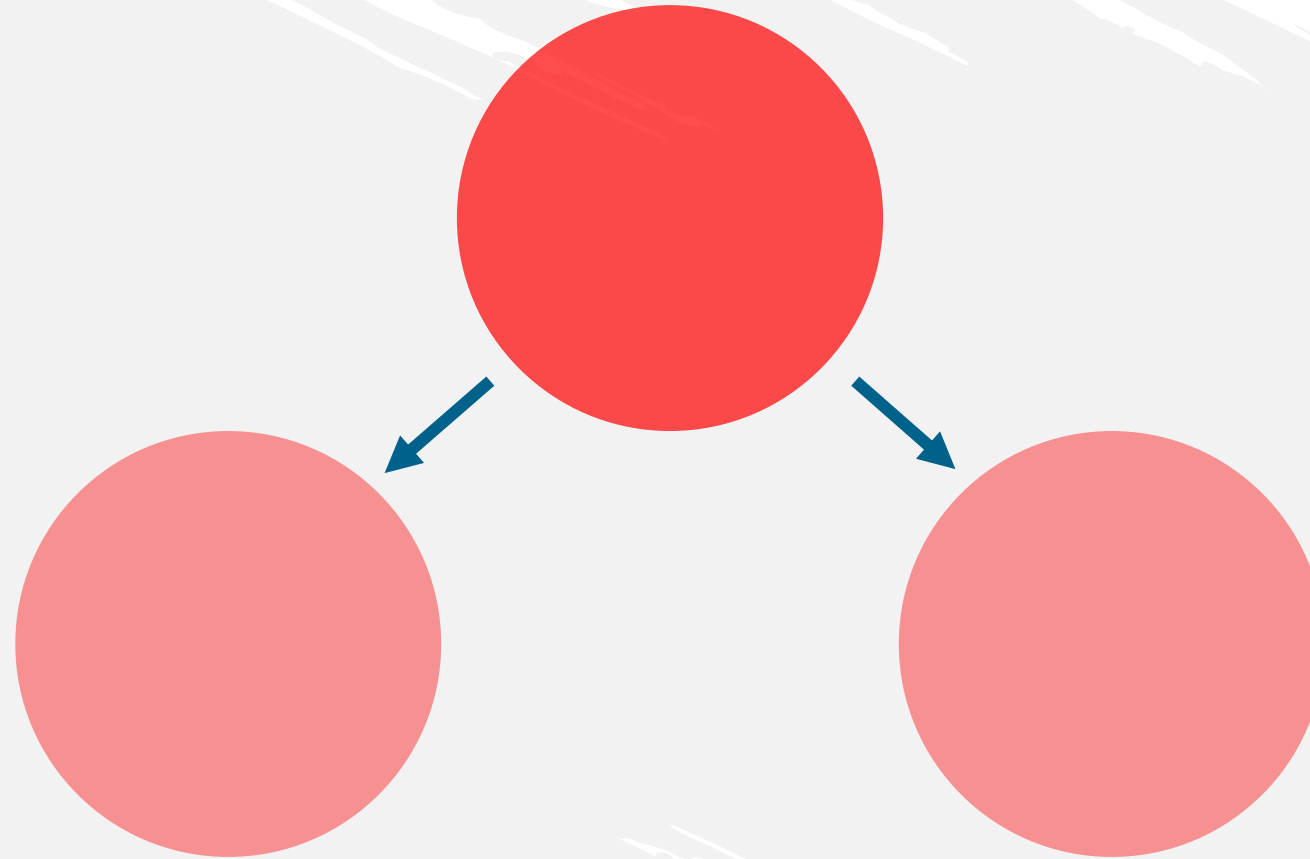
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## SQL Self Join



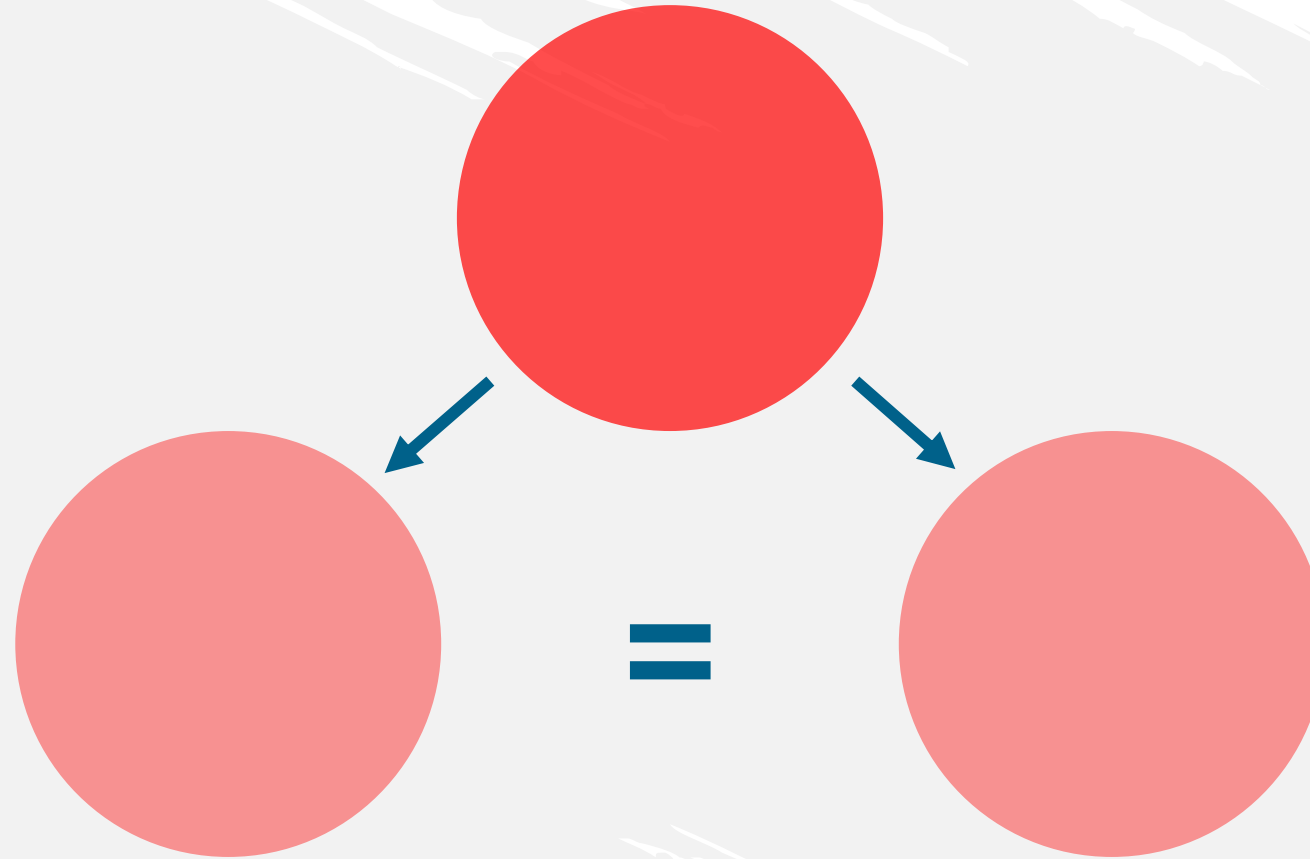
- the 2 tables will be *identical* to the table you'll be using in the self-join

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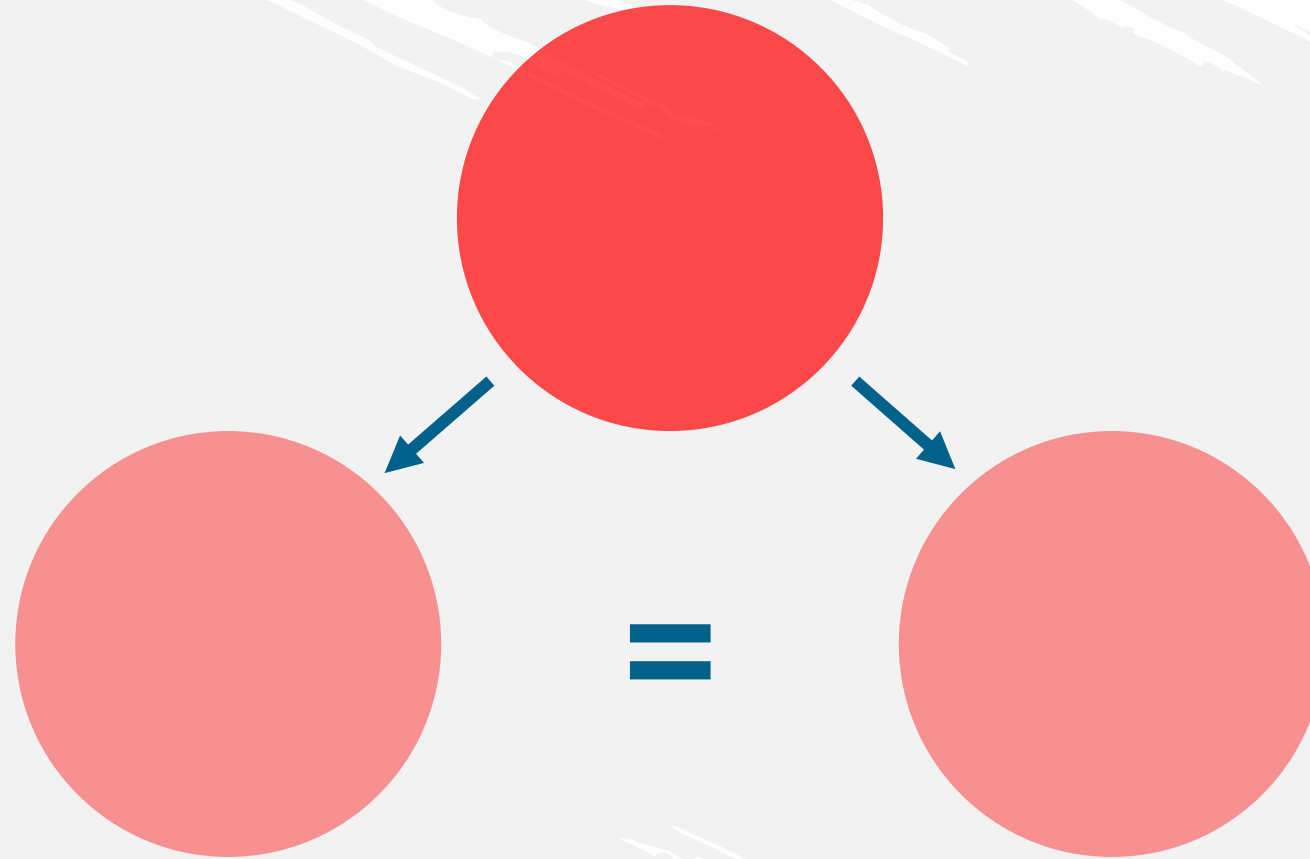
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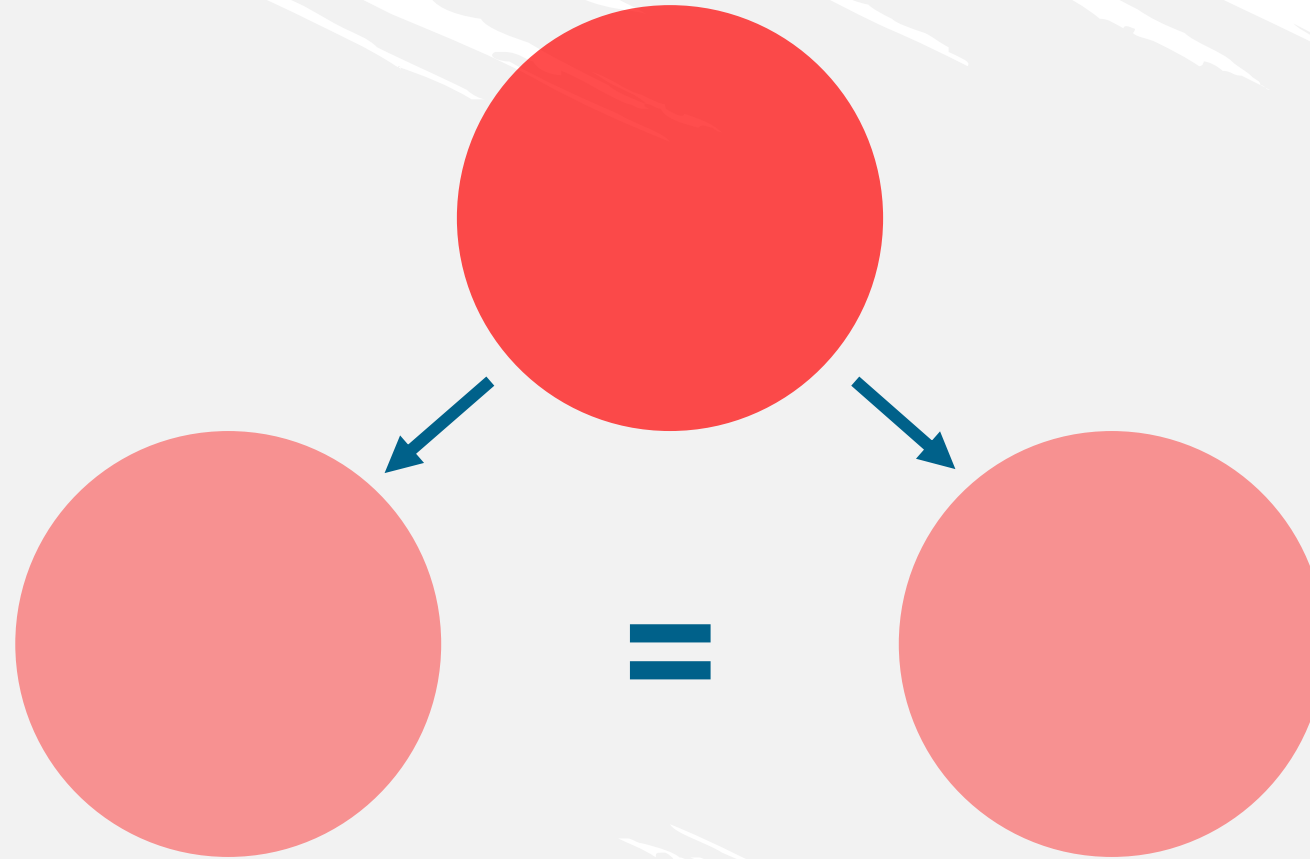
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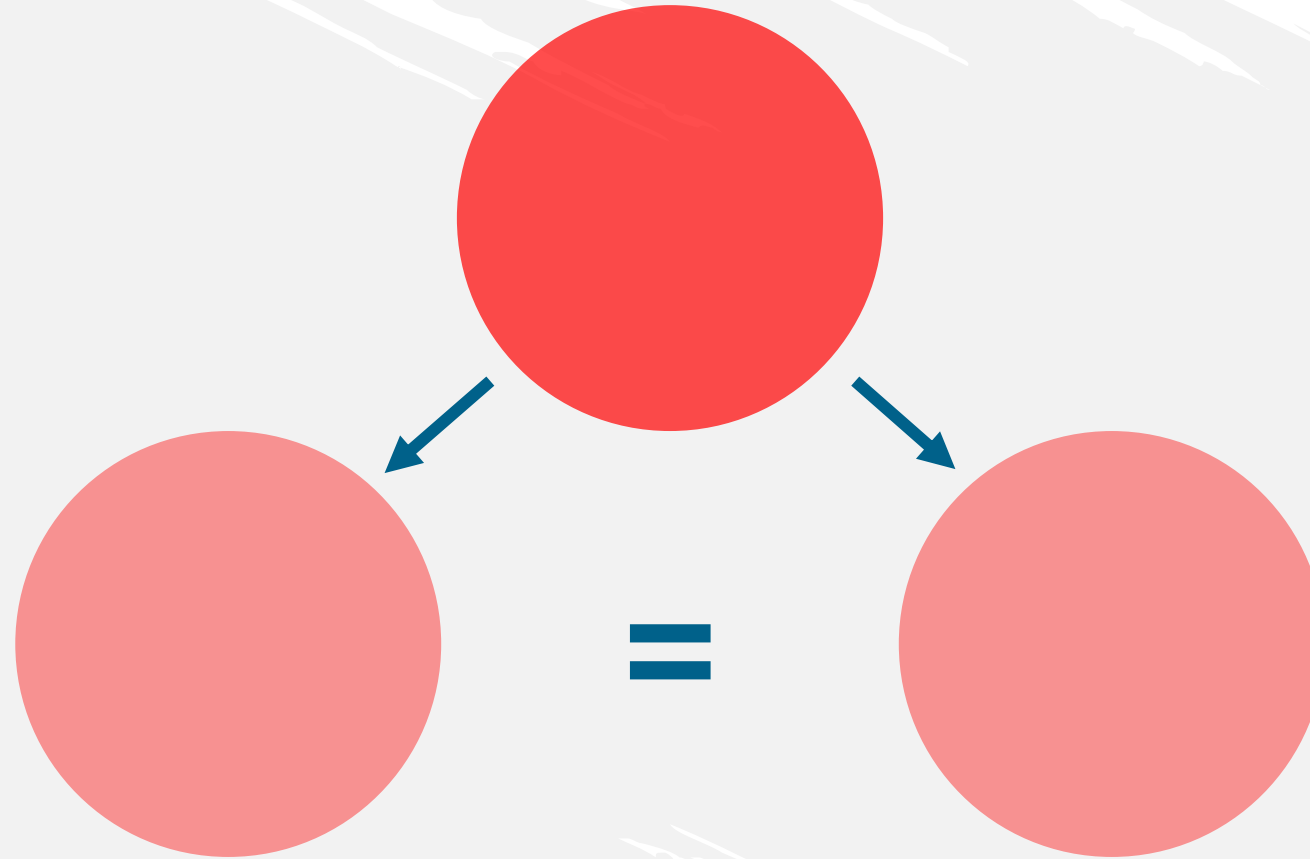
- the 2 tables will be *identical* to the table you'll be using in the self-join
- you can think of them as virtual projections of the underlying, base table

# SQL Self Join



- the self-join will reference both implied tables and will treat them as two *separate* tables in its operations

# SQL Self Join



- the data used will come from a single source, which is the underlying table that stores data *physically*

# INNER JOIN

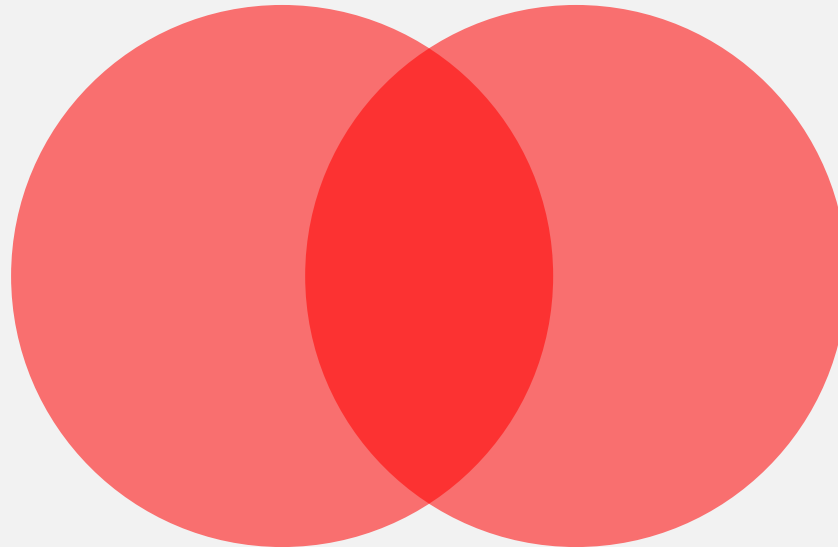
dept\_manager\_dup

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emp\_no INT

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to\_date DATE



departments\_dup

dept\_no CHAR(4)

dept\_name VARCHAR(40)



# INNER JOIN

dept\_manager\_dup

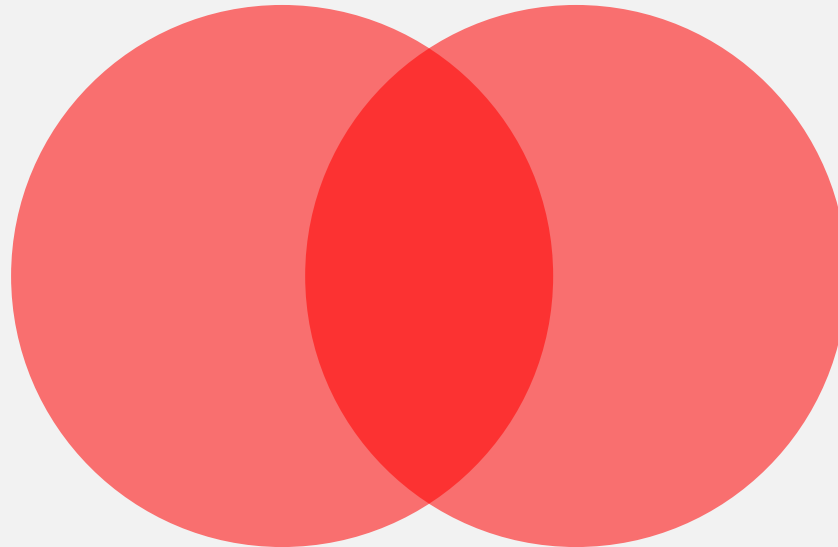
dept\_no CHAR(4)

emp\_no INT

from\_date DATE

to\_date DATE

**M**



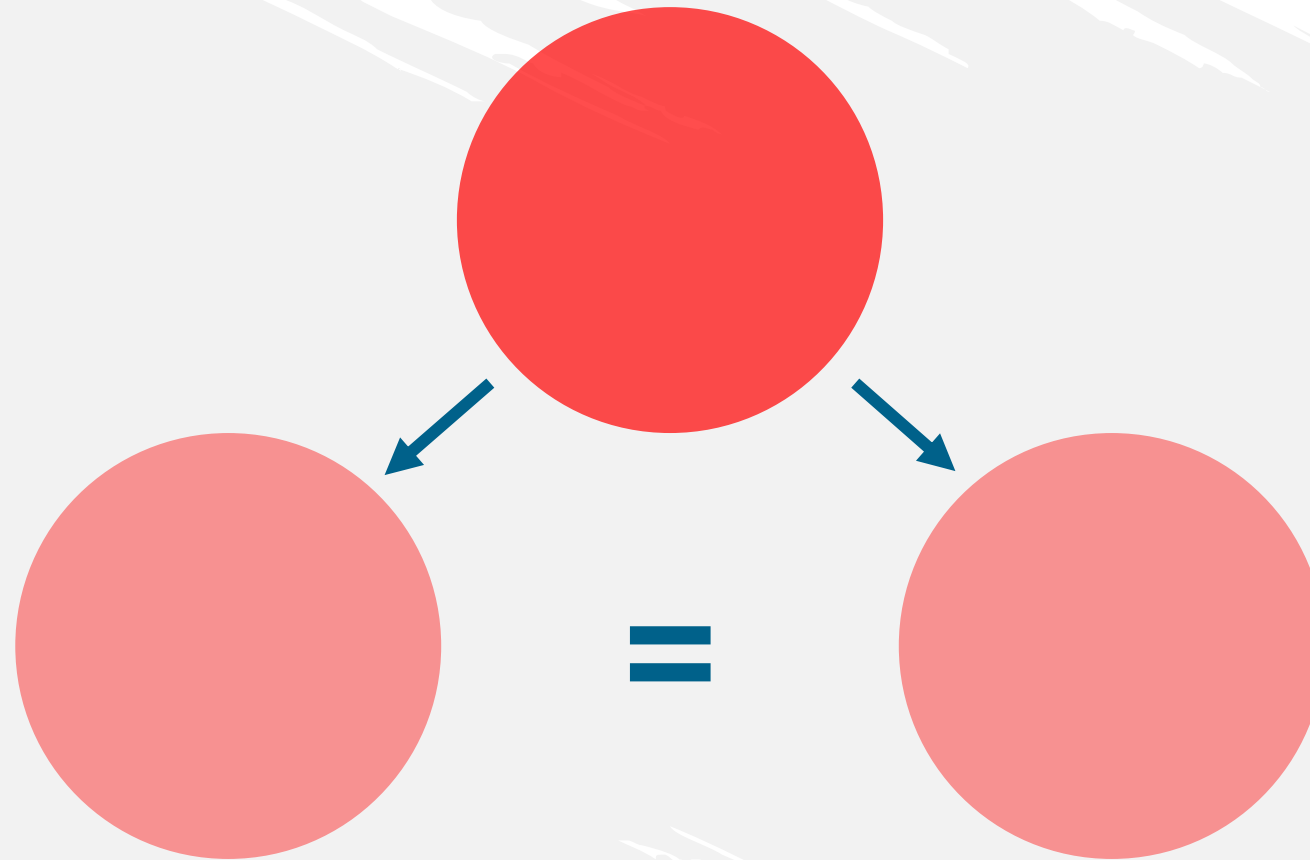
departments\_dup

dept\_no CHAR(4)

dept\_name VARCHAR(40)

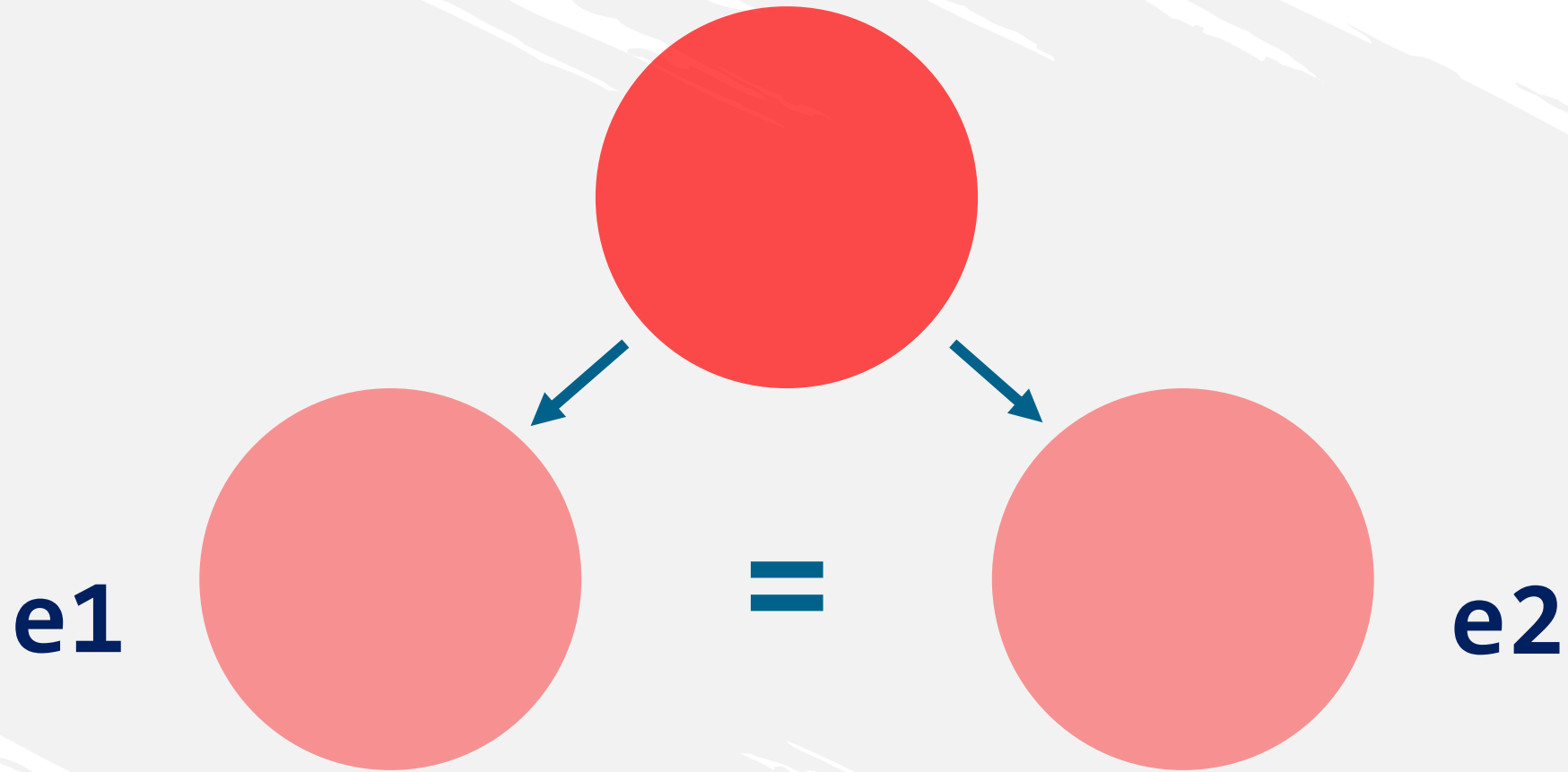
**D**

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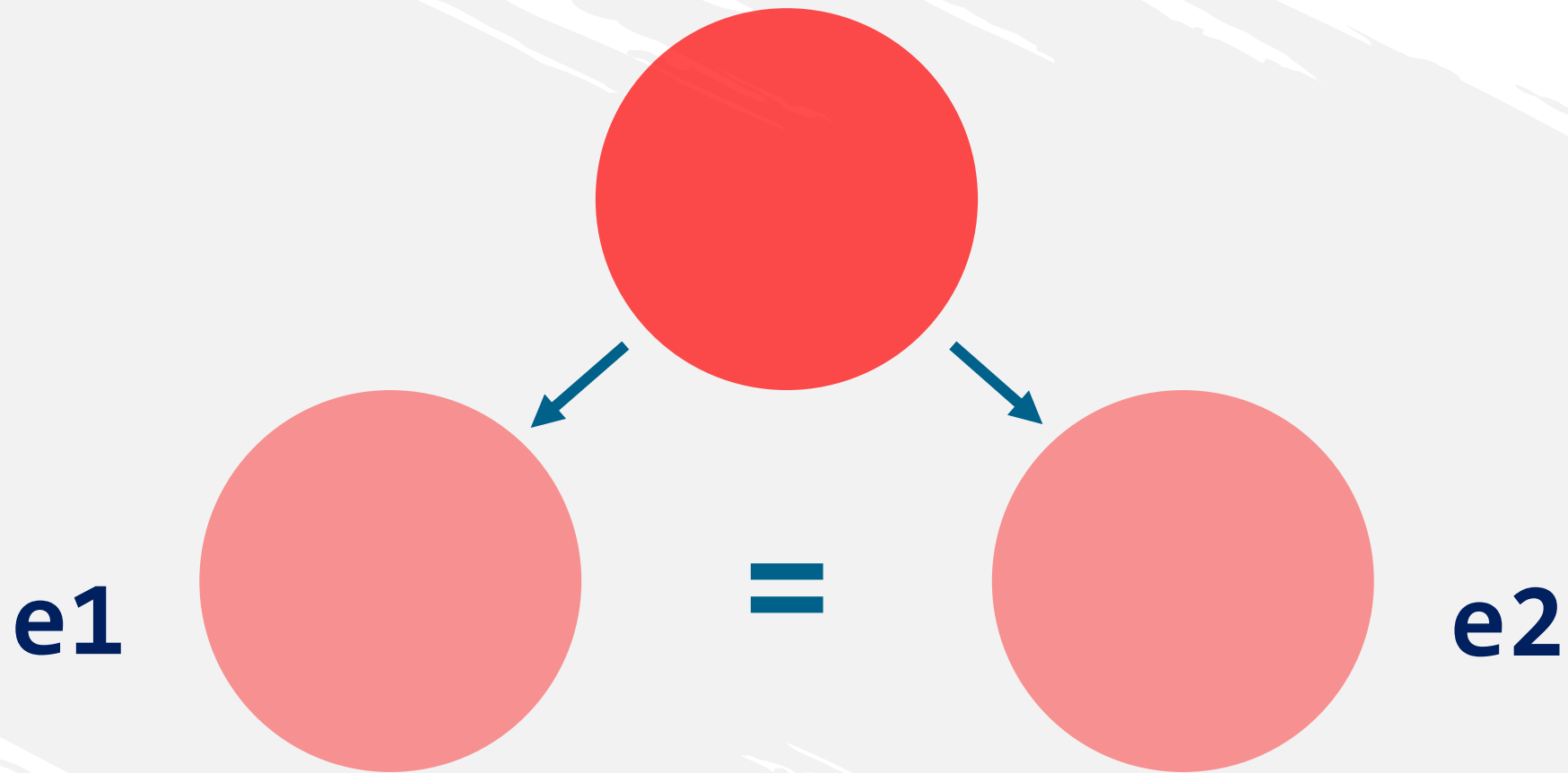
- using aliases is *obligatory*

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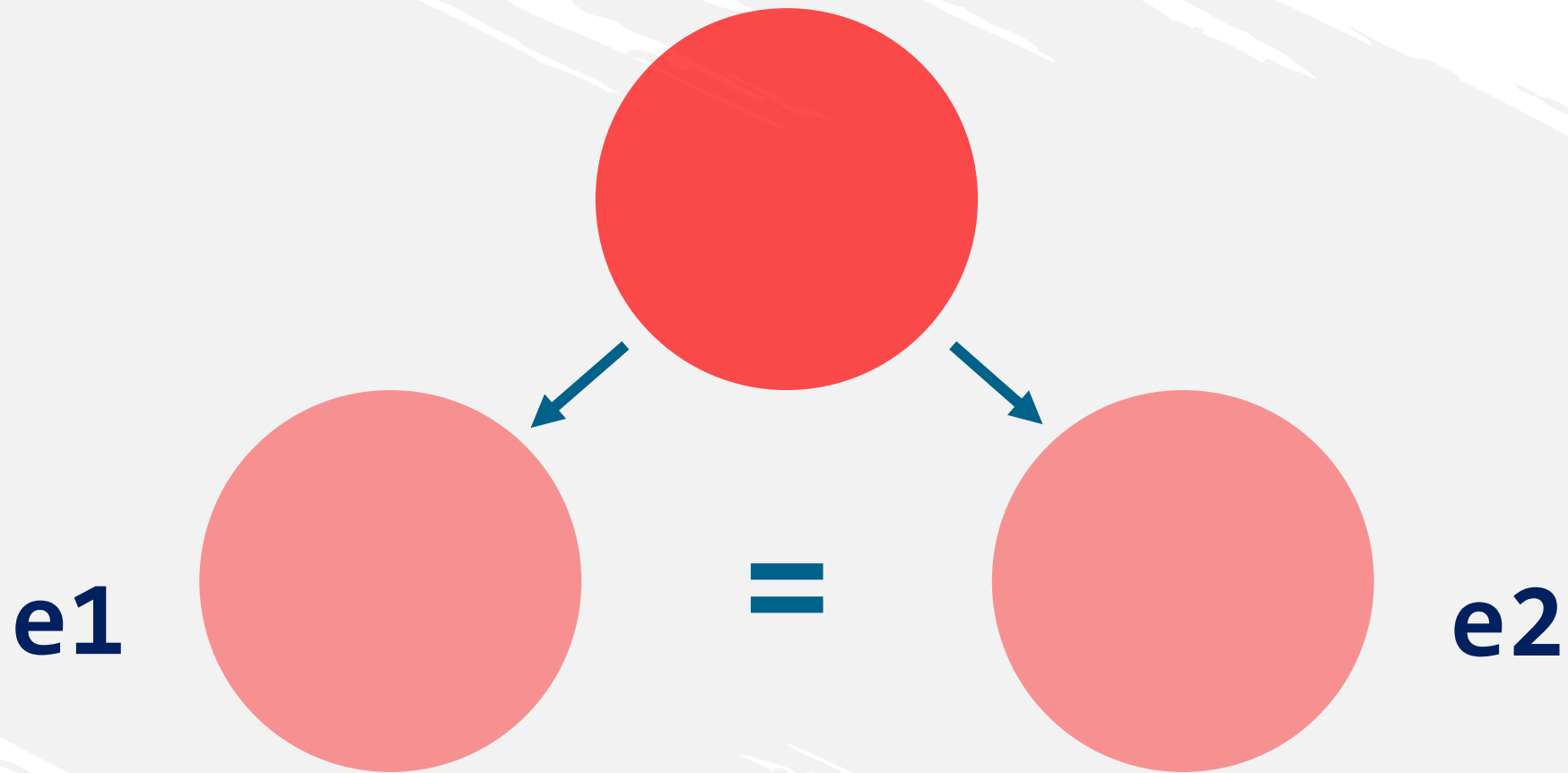
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## SQL Self Join



- these references to the original table let you use different blocks of the available data

## SQL Self Join



- you can either filter both in the join, or you can filter one of them in the WHERE clause, and the other one - in the join

# SQL Self Join

`emp_manager`

