SQL Subqueries

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SQL Subqueries with IN Nested Inside WHERE

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subqueries

queries embedded in a query

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- they are part of *another* query, called an <u>outer query</u>

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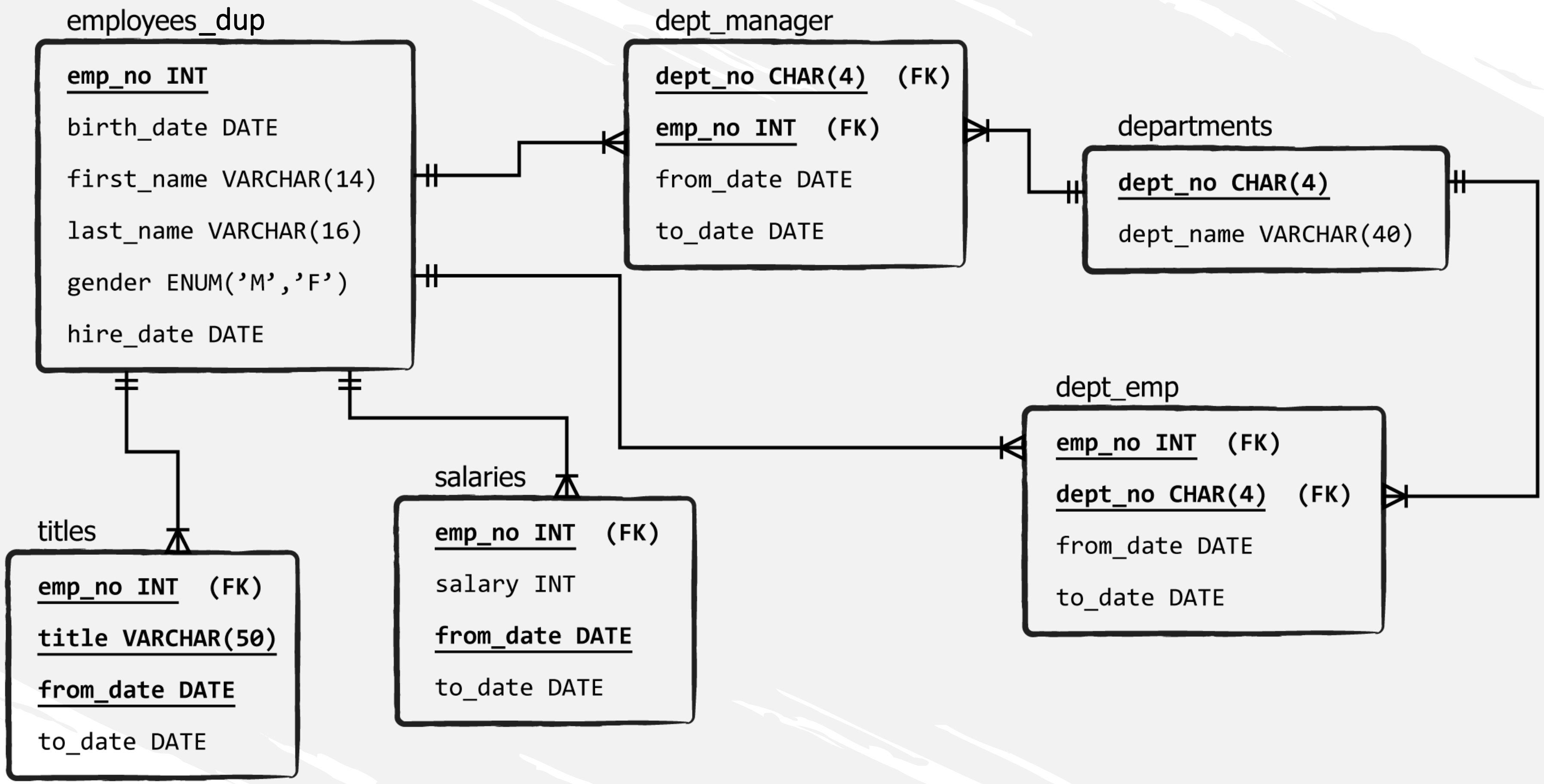
= <u>outer select</u>

SQL Subqueries with IN Nested Inside WHERE



employees_dup

emp_no INT
birth_date DATE
first_name VARCHAR(14)
last_name VARCHAR(16)
gender ENUM('M','F')
hire_date DATE

dept_manager

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

departments

dept_no CHAR(4)
dept_name VARCHAR(40)

dept_emp

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

salaries

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salary INT
from_date DATE
to_date DATE

titles

emp_no INT (FK)
title VARCHAR(50)
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to_date DATE

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- <u>subqueries</u>

  - a subquery should *always* be placed within parentheses

SQL Subqueries with IN Nested Inside WHERE

1) the SQL engine starts by running the *inner query*

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- 2) then it uses its returned output, which is intermediate, to execute the *outer query*

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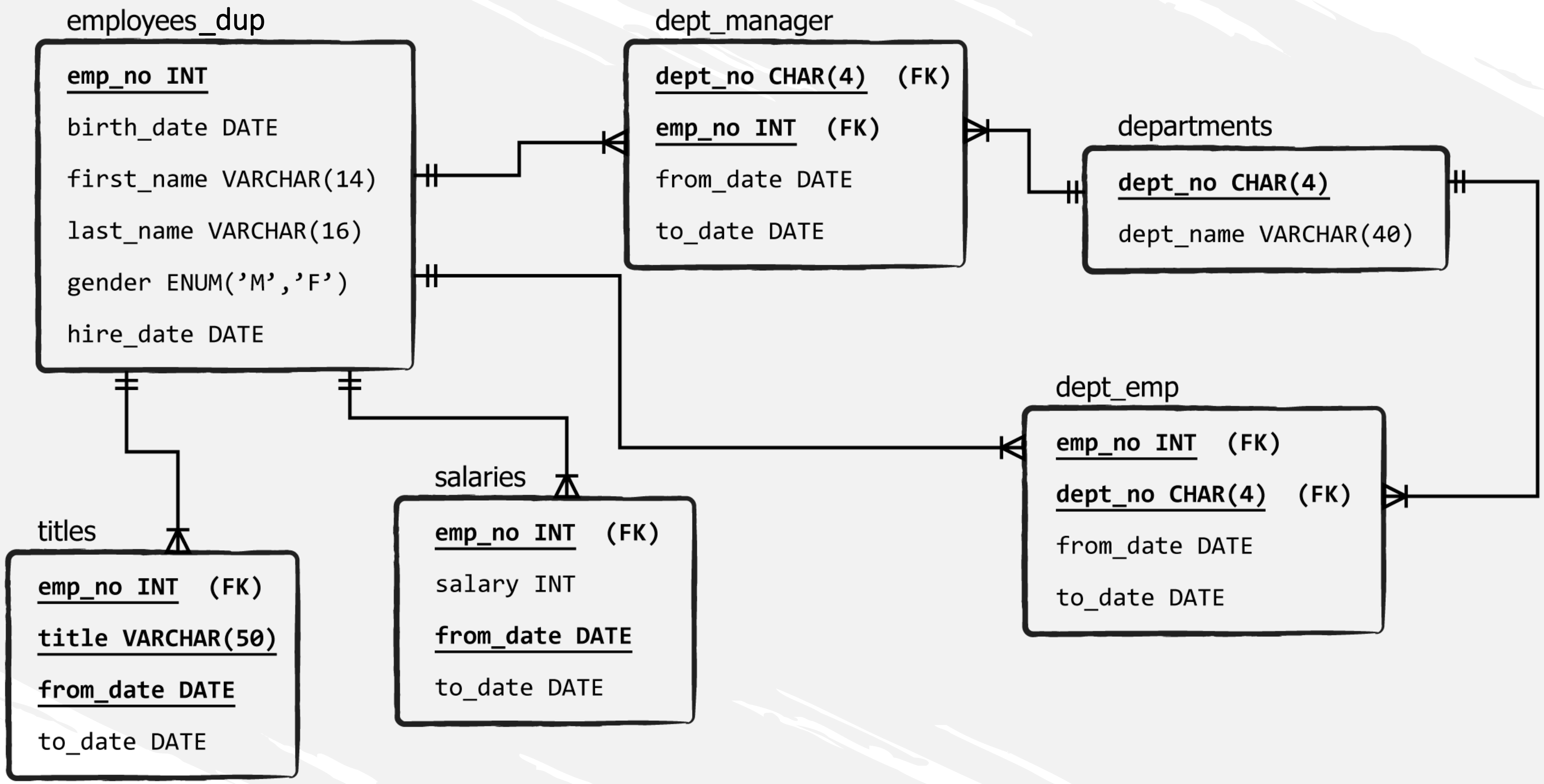

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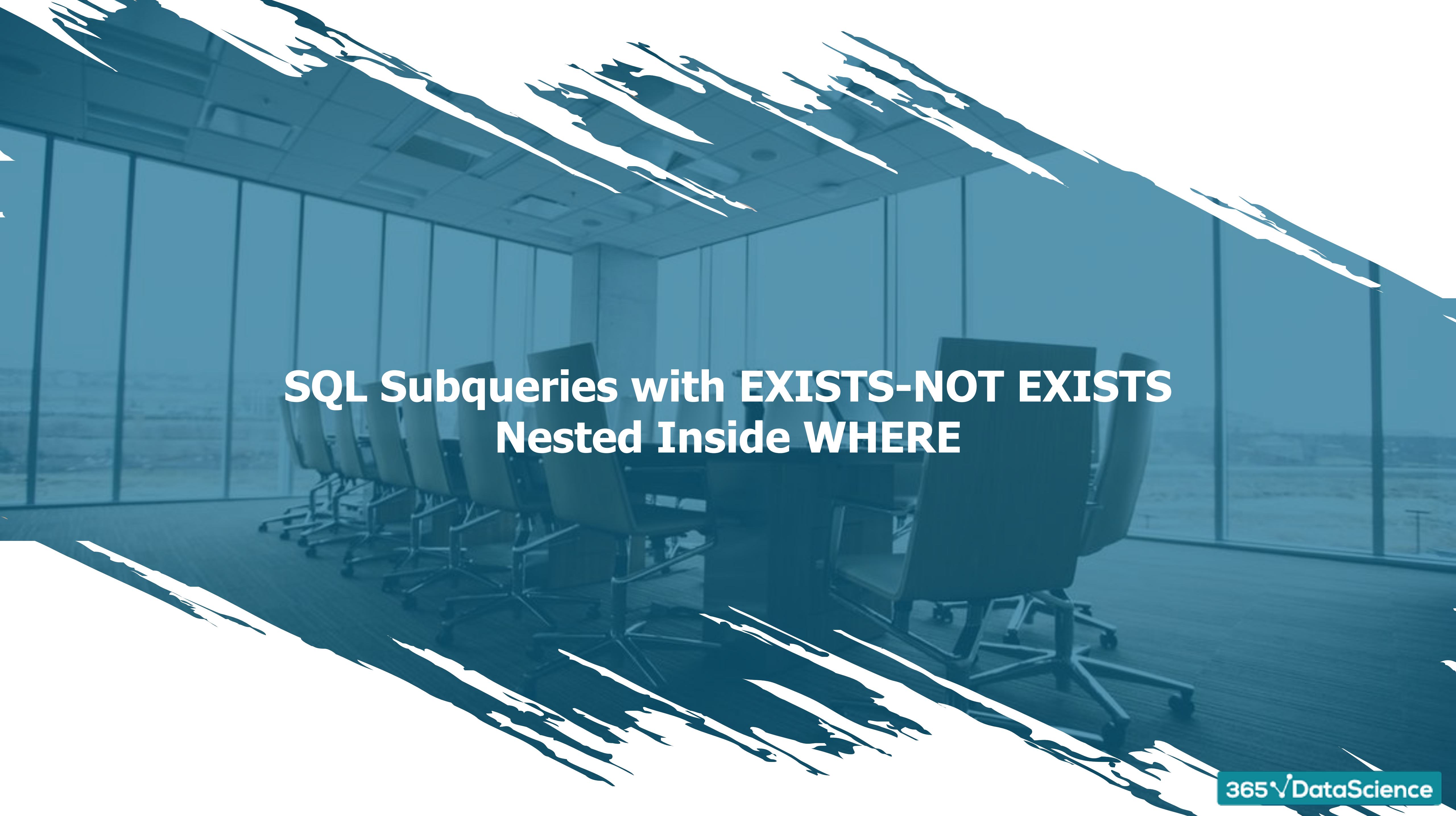

SQL Subqueries with EXISTS-NOT EXISTS Nested Inside WHERE

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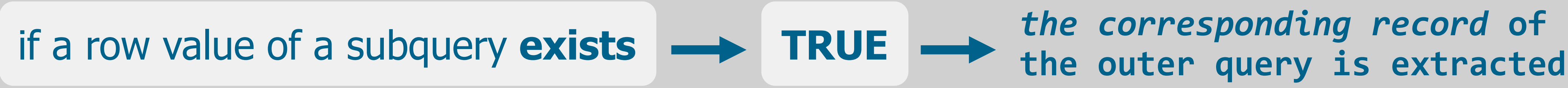

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quicker in retrieving large amounts of data	faster with smaller datasets

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- it is more acceptable logically to sort the *final* version of your dataset

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- this is true particularly for inner queries using the WHERE clause

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- many users prefer subqueries simply because they offer *enhanced code readability*

SQL Subqueries Nested in SELECT and FROM

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☺

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In this lecture:

challenging task

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exercise