

Introduction to SQL

Shaping result sets, and using joins

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pluralsight
hardcore developer training 



What you will learn...

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- How to shape a single table result set, and then how to join two tables together for a combined result set

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- SQL provides native capabilities that should be used before resorting to other means

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      FROM person p  
      ORDER BY p.person_last_name
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what is the average number of times I've contacted people in my contact list?

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SUM	Returns the sum of the values for the column specified – does not include NULL values and only works on numeric columns

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FROM person p;
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    NameCount,
    p.person_first_name
FROM person p
GROUP BY p.person_first_name
HAVING NameCount >= 5;
```

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 - Using the relations between the Tables to answer more complex questions

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FROM person p INNER JOIN email_address e
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- **A FULL OUTER JOIN will return a result set with all the joined rows**
 - The rows from the first table will also be returned, matched with NULL values for the second table's columns
 - If there are any rows in the second table that match the expression, they are also returned – and the cells from the first table will be NULL

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What are all my contacts and their email addresses, including the ones missing an email address and the ones with an email address but missing a contact name.?

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person_first_name	person_last_name	email_address
Jon	Flanders	jon@...
Fritz	Onion	fritz@...
Shannon	Ahern	NULL
NULL	NULL	aaron@...

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- Using LEFT OUTER JOIN means that only the rows from the table on the left of the LEFT OUTER JOIN clause will be returned

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- **Using LEFT OUTER JOIN means that only the rows from the table on the left of the LEFT OUTER JOIN clause will be returned**
 - Rows that are not matched will have NULL for the columns from the right-hand side table

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- **NULL** values for rows that don't have a match in the left-hand side table

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what are the email addresses I have, including those emails I don't have a person for?

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SELECT
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FROM person p RIGHT OUTER JOIN email_address e
ON p.person_id = e.email_address_person_id;
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- It is odd but sometimes it is useful to join a table against itself
- There isn't any specific syntax for this JOIN, but it is worth mentioning that the same table can be on both the left-hand side and the right-hand side of a JOIN clause

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- **ORDER BY and GROUP BY can help you to shape your results to more easily answer complex questions from your data.**

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- **ORDER BY and GROUP BY can help you to shape your results to more easily answer complex questions from your data.**
- **JOINS make the relational model come to life by associating tables together**