

## Management

### Lesson 7: Relational Algebra

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- ✓ **Video:** Relational Algebra Overview  
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- ✓ **Video:** Relational Algebra Operators: Union, Difference, Selection  
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- ✓ **Video:** Relational Algebra Operators: Projection, Cross Product  
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- ✓ **Video:** Relational Algebra Operators: Cross Product cont'd, Join  
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- ✓ **Video:** Relational Algebra Operators: Outer Join  
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### Lesson 8: SQL for Data Science

### Lesson 9: Key Principles of Relational Databases

### Assignment 2: SQL

## Relational Algebra Operators: Theta-Join

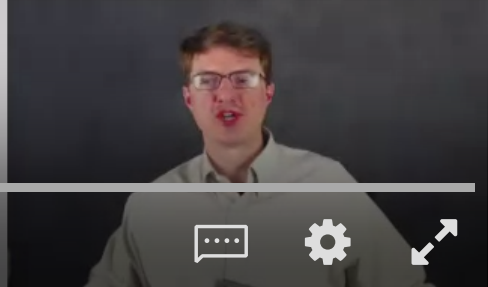
# Theta Join

- A join that involves a predicate

$$R1 \bowtie_{\theta} R2 = \sigma_{\theta} (R1 \times R2)$$

- Here  $\theta$  can be any condition

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English



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0:00 [MUSIC] So more generally you can have what we'll call a theta-join. And this is essentially just a join, but the condition here can be anything you want.

0:14 Okay.

0:16 Rather than just an equality condition. This could be greater than or less than or arbitrary functions and so on, okay? And so this all pairs similarity test that I talked about before is an example of a theta-join. And we'll see a more detailed example in a second. So just to point out that even join itself is a special case of theta-join where theta is just the equality condition, all