

Lesson 6: Principles of Data Manipulation and Management

Lesson 7: Relational Algebra

Lesson 8: SQL for Data Science

Lesson 9: Key Principles of Relational Databases

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Assignment 2: SQL

Optimization: Physical Query Plans

UNIVERSITY of WASHINGTON

Same logical expression, different physical algorithms

```
SELECT *
FROM Order o, Item i
WHERE o.order = i.order
```

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English



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0:00

[MUSIC] So we talked about algebraic optimization and then we talked about decorative

languages on top of the algebra in order to simplify expression and in order to avoid specifying to the computer exactly how to do it. Right we want to leave that open and let the database figure that out. But we stopped at what I'll call logical optimization. And I want to talk a little bit about the physical level optimization. And what I mean by this is that, we hinted at this last time, but even after you specify the order of operations, we haven't yet specified every detail needed in order to actually evaluate the query, okay. And let me give you an example of that. So here's a simplified version of a query we looked at last time. When we say for every order, we wanna find