

Set Operations

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1

Vocabulary

- ▷ INTERSECT
- ▷ MINUS
- ▷ UNION
- ▷ UNION ALL

2

Set Operations

- ▷ Unlike JOIN which is working with the columns in a database, the set operations are working on the ROWS!
- ▷ All column results in the set operation need to have the same number and type of values.
- ▷ This means Date, Text is different and incompatible with Text, Date
- ▷ You also want to make sure that the fields you are working with have the right values even if they are the same type


3

Order of Operations

- Set based operations execute on a top to bottom schedule.
- If you need something done before hand you can do a subquery first then do the operation on them via parens
 - Like a named query!

4

Visual Representation of set operations



5

UNION



6

UNION

- ▶ The UNION is the combination of the rows from the first table and the second table
- ▶ You want the names of all the students and teachers in your school
- ▶ Automatically SORTS your data!!!!

7

UNION Examples

- ▶ Combined and Sorted lists of
 - ▶ Favorite movies of teachers and students
 - ▶ Worst dinner item of kids and parents
 - ▶ Favorite color and movie of group A combined with least favorite color and hated song lyric from group B

8

UNION ALL



9

UNION ALL

- Same idea of UNION but...
 - No sorting
 - Includes duplicates
 - Useful for making compound INSERT statements
 - Subquery data source for an aggregate function

10

UNION ALL Examples

- Ask questions with guaranteed duplicates
 - Favorite foods of entire classroom
 - Favorite color
 - What you ate for lunch

11

MINUS



12

MINUS

- The partial side circle in the Venn diagram
 - None of the middle
- Also sorts results
- I want to get the ones that are ONLY in one table and not shared between both
- Order of the tables used **REALLY** matters!
 - query_a MINUS query_b
 - VS
 - query_b MINUS query_a

13

MINUS Examples

- What is a characteristic that is only shared by Batman not Spiderman
- What rights listed in the Universal Declaration of Human rights are not shared in the US Constitution and associated amendments
- What features of the Honda Accord are not shared with the Honda Civic

14

INTERSECT



15

INTERSECT

- The same as an equijoin but requires matching columns in both halves of the query
- Sorts the data
- If you are looking for a intersection of non standard JOIN data choose INTERSECT instead
 - AKA There is not a PK/FK relationship


16

INTERSECT Example

- What are personal qualities the protagonist and antagonist have in common?
- Insert generic ELA reading assignment here

17

Visual Representation of set operations



18
