Intermediate Joins in SQL: Takeaways ₪

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Syntax

• Joining data from more than two tables:

```
SELECT [column_names] FROM [table_name_one]
  [join_type] JOIN [table_name_two] ON [join_constraint]
  [join_type] JOIN [table_name_three] ON [join_constraint]
  ...
  ...
  [join_type] JOIN [table_name_three] ON [join_constraint]
```

• Combining columns into a single column:

```
SELECT

album_id,

artist_id,

"album id is " || album_id col_1,

"artist id is " || artist_id col2,

album_id || artist_id col3

FROM album LIMIT 3;
```

• Matching a part of a string:

```
SELECT
   first_name,
   last_name,
   phone
FROM customer
WHERE first_name LIKE "%Jen%";
```

• Using if/then logic in SQL:

```
CASE
    WHEN [comparison_1] THEN [value_1]
    WHEN [comparison_2] THEN [value_2]
    ELSE [value_3]
    END
AS [new_column_name]
```

Concepts

- A schema diagram helps us understand the available columns and the structure of the data.
- In a schema diagram, relationships are shown using lines between tables.
- Each row's primary key must be unique.
- A recursive join is joining a table to itself.
- The SQL engine will concatenate multiple columns and columns with a string. Also, the SQL engine also handles converting different types where needed.

- We can use the pipe operator (||) to concatenate columns.
- You can use the LIKE statement for partial matches:
 - %Jen : will match Jen at the end of a string, e.g., Sarah-Jen.
 - Jen%: will match Jen at the start of a string, e.g., Jenny.
 - %Jen%: will match Jen anywhere within the string, e.g., Kris Jenner.
- LIKE in SQLite is case insensitive but it may be case sensitive for other flavors of SQL.
 - You might need to use the LOWER() function in other flavors of SQL if is case sensitive.

Resources

- LOWER function
- Database Schema

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