

COMP 353 - Databases

4th Session

Omid Reza Heidari

2022-02-12

DELETE

This command is used to eliminate the existing records in a table

In contrast to insert command, which add a new row/rows to a table, there is a command that is called delete, which omit the record(s) from a table that have/ has the specific condition(s).

UPDATE

This command is used to alter the existing records in a table

This command is used to modify some/all attributes of the row(s) which have/has the specific condition(s).

IN

This operator is used in where clause

This command is used to allow you to specify several values in a where clause. This command, moreover, is a shortcut for several OR operators in a where clause.

BETWEEN

Select a specific range

This operator is utilized to select values within a given range. These values could be one of the following types:

- Numbers
- Text
- Dates

This command is inclusive: BEGIN and END values are included.

LIKE

Find a specific pattern

This command is used to quest for a specific pattern in a column.

Two most popular wildcards are used in conjunction with the LIKE operator:

- The percentage sign (%) represents zero, one, or multiple characters.
- The underscore sign (_) indicates one, single character.

Moreover, further SQL wildcards will be discussed in the next slides (others except the mentioned ones are not supported in MySQL)

Wildcards

Substitute one or more characters in a string

- % Represents zero or more characters
- _ Represents a single character
- [] Represents any single character within the brackets (Not Supported in MySQL)
- ^ Represents any character not in the brackets (Not Supported in MySQL)
- - Represents any single character within the specified range (Not supported in MySQL)
- {} Represents any escaped character (Not Supported in MySQL)

Wildcards

Substitute one or more characters in a string (Example)

- % : All customers which live in a city that start with any character, followed by “ondon”
- _ : All customers which live in a city that start with “L”, followed by 3 character, ending with “on”
- [] : All customers starting with either “b”, “s”, or “p”
- ^ : All customers starting with “a”, “b”, “c”, “d”, “e” or “f”s
- - : All customers starts with “a” and are at least 3 characters in length
- {} : All customers that have “r” in the second position

LIKE (without wildcard)

Without wildcard, this command return exact match

If there is no wildcard specified, the phrase has to have the exact match to return the result.

Example: Return all customers from “Spain”.

LIMIT

Select top rows of a query

This clause is used to limit the number of records to return. The rest of the results will be ignored.

Example: Select the first 2 records of the customers which is from Canada.

Ignore some rows? Use OFFSET key word after LIMIT clause.

UNION

Combine the results

This operator is used to combine several results of the queries. Furthermore, there are several conditions should be followed:

- Every SELECT statement within UNION must have the same number of columns
- The columns must also have similar data types
- The columns in every SELECT statement have to also be in the same order

UNION IN WHERE

Union operator could be used also in where clause

The only place that we could exploit UNION operator in the queries is not in SELECT clause. This operator, moreover, could be used in WHERE clause.

Any Question?

See you in the next week!