The SELECT Statement

Querying data is the most frequently performed operation in SQL databases.

In SQL, using the **SELECT** statement, you can retrieve data from some or all the fields (columns) of a table.

It uses the combinations of different clauses to retrieve data from a table.

The following are some of the main clauses.

- The **FROM** clause.
- The **WHERE** clause.
- The **ORDER BY** clause.
- The **GROUP BY** clause.

The **FROM** clause

The **FROM** clause is used to specify a table-name in a **SELECT** statement. This clause is required while retrieving data from the table.

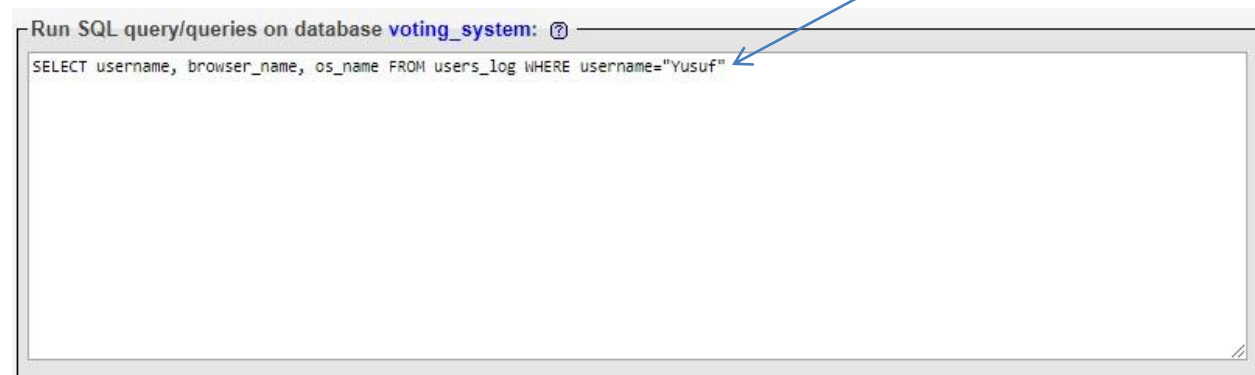This SQL query retrieves all the columns and records in the **users_log** table

Run SQL query/queries on database voting_system: ⑦

```
SELECT * FROM users_log
```

This character is called "**wildcard**" and is used to select all the columns from a table

The **WHERE** clause

In day-to-day business transactions, the data that is typically required is filtered based on certain conditions.

For example, in your workplace your boss asked you; he wants you to display the **browser_name** and the **os_name** in the **users_log** table where the username is **Yusuf**; the best way to achieve this task is by filtering the data in the **users_log** table base on certain conditions.

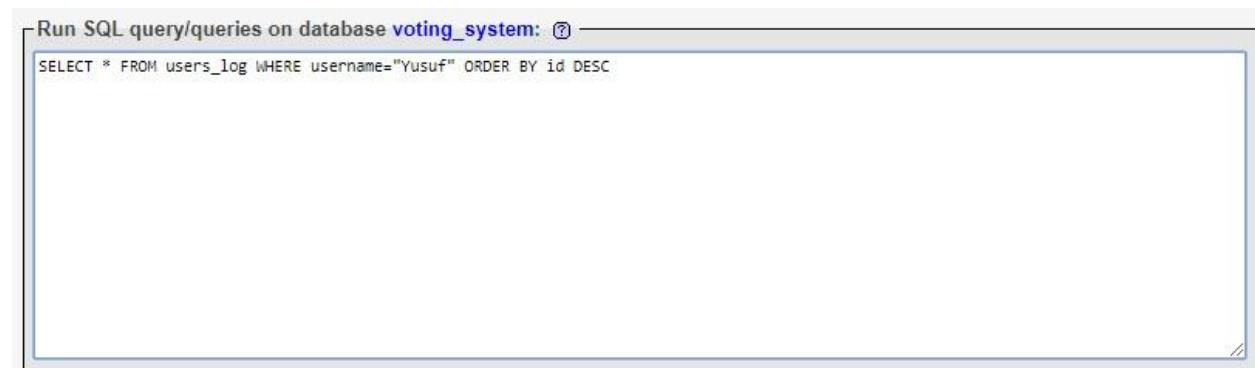> This SQL query filters the data from the users_log **WHERE** the username is **Yusuf**

```
Run SQL query/queries on database voting_system: ?
SELECT username, browser_name, os_name FROM users_log WHERE username="Yusuf"
```

The **ORDER BY** clause

The **ORDER BY** clause is used along with the **SELECT** statement to allow sorting of records in ascending or descending order using the **ASC** or **DESC** keywords.

NB: if the **ASC** or **DESC** value is not specified with the **ORDER BY** clause, then the system sorts the records in the default order, that is ascending order **ASC.**

```
Run SQL query/queries on database voting_system: ?
SELECT * FROM users_log WHERE username="Yusuf" ORDER BY id DESC
```

The **GROUP BY** clause

The **GROUP BY** clause is used in a SELECT statement to group records from a table on the basis of one or more columns.

The **GROUP BY** is mostly combined with aggregate functions to generate summary values.

We will be learning more on **aggregate functions** later in the course of this tutorial series.