Week-08 Research

1. Besides the creation and dropping of tables and columns (Data Definition Requests or DDL), what other types of requests can you make to a MySQL database?  How is data retrieved from a MySQL database?  What clauses exist for restricting the data that is returned to the user?  Please include the syntax for this type of request, and examples.

Structured Query Language (SQL) can be divided into five areas:

1. DDL – Data Definition Language
2. DQL – Data Query Language
3. DML – Data Manipulation Language
4. DCL – Data Control Language
5. TCL – Transaction Control Language

*https://www.geeksforgeeks.org/sql-ddl-dql-dml-dcl-tcl-commands/*

The DQL allows for the retrieval of data from the database by use of the SELECT command. The SELECT command had the following syntax:

SELECT

[ALL | DISTINCT | DISTINCTROW ]

[HIGH\_PRIORITY]

[STRAIGHT\_JOIN]

[SQL\_SMALL\_RESULT] [SQL\_BIG\_RESULT] [SQL\_BUFFER\_RESULT]

[SQL\_NO\_CACHE] [SQL\_CALC\_FOUND\_ROWS]

*select\_expr* [, *select\_expr*] ...

[*into\_option*]

[FROM *table\_references*

[PARTITION *partition\_list*]]

[WHERE *where\_condition*]

[GROUP BY {*col\_name* | *expr* | *position*}, ... [WITH ROLLUP]]

[HAVING *where\_condition*]

[WINDOW *window\_name* AS (*window\_spec*)

[, *window\_name* AS (*window\_spec*)] ...]

[ORDER BY {*col\_name* | *expr* | *position*}

[ASC | DESC], ... [WITH ROLLUP]]

[LIMIT {[*offset*,] *row\_count* | *row\_count* OFFSET *offset*}]

[*into\_option*]

[FOR {UPDATE | SHARE}

[OF *tbl\_name* [, *tbl\_name*] ...]

[NOWAIT | SKIP LOCKED]

| LOCK IN SHARE MODE]

[*into\_option*]

*into\_option*: {

INTO OUTFILE '*file\_name*'

[CHARACTER SET *charset\_name*]

*export\_options*

| INTO DUMPFILE '*file\_name*'

| INTO *var\_name* [, *var\_name*] ...

}

*https://dev.mysql.com/doc/refman/8.0/en/select.html*

The WHERE clause is used for restricting the number of rows returned to a set that matches its boolean conditions. For example:

**SELECT \***

**FROM FlightAvailability**

**WHERE business\_seats\_taken IS NULL**

*https://docs.oracle.com/javadb/10.6.2.1/ref/rrefsqlj33602.html*

2.  Research different constructs that are available in MySQL when retrieving data. What types of constructs can be put into the WHERE clause?   Please include the syntax for this type of request, and examples.

WHERE clauses can use the Boolean operators, AND, OR, or NOT. Example:

SELECT city, country

FROM offices

WHERE country = 'UK'

  OR country = 'France';

In addition, the IN operator is also available. Example:

SELECT city, country

FROM offices

WHERE country IN ('UK', 'France');

*https://learnsql.com/blog/where-clause-in-sql/*

1. List 3-5 interesting facts that you have learned about MySQL from your research?
2. SQL is made up of four (though most say, five) languages that perform the major tasks of a RDBMS.
3. The SELECT command is the only command in the DQL.
4. The WHERE clause can not have aggregate functions directly inside of it.
5. What is your favorite thing you learned this week?

Using SQL scripts to create MySQL databases.