

SQL Commands

	Commands	Description
1	SELECT	Used to select data from a database. Returns the specified columns and their respective rows.
2	DISTINCT	Used to return only distinct (unique) values.
3	FROM	Used to identify the first table.
4	JOIN	Used to combine two or more tables
5	ON	Used to identify the column(s) on which the two tables must combine on
6	WHERE	Used as a filter, to extract only those records that fulfil a specified condition. Used to create logical conditions on one or many non-aggregated columns.
7	GROUP BY	Used to group rows that have the same values into summary rows. Used on non-aggregated columns to return a unique set of rows. When there are non-aggregated and aggregated columns only the non -aggregated columns are specified.
8	HAVING	Was added to SQL because the WHERE keyword cannot be used with aggregate functions. Used to create logical conditions on aggregated columns.
9	ORDER BY	Used to sort the result-set in ascending or descending order. By default it is ascending.
10	LIMIT	Used to limit the number of rows returned.

SQL Order of Operations

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SQL - In Summary

Categorization of SQL commands Data Definition Language(DDL): Create, Drop, Truncate, Alter, Comment, Rename Data Manipulation Language(DML): Insert, Update, Delete, Copy, Merge Data Query Language (DQL): Select Data Control Language (DCL): Grant, Revoke Transaction Control Language(TCL): Commit, Rollback	Common Data Types: char(size) varchar(size) int(size) float(p) smallint(size) enum(str1,str2,str3) Date Time Year timestamp
SQL CREATE CREATE TABLE table_name(col1 datatype, col2 datatype, col3 datatype, ...);	SQL ALTER TABLE ALTER TABLE table_name ADD col_name data type
SQL INSERT INTO INSERT INTO table_name (column1, column2, column3, ...) VALUES (value1, value2, value3, ...);	SQL SELECT SELECT col[s]/* FROM table_name WHERE condition ORDER BY desc/asc [default:asc]
SQL JOINS <u>INNER JOIN</u> SELECT colname[s] FROM table1 INNER JOIN table2 ON table1.colname = table2.colname <u>LEFT JOIN</u> SELECT colnames[s] FROM table1 LEFT JOIN table2 ON table1.colname = table2.colname	<u>RIGHT JOIN</u> SELECT colnames[s] FROM table1 RIGHT JOIN table2 ON table1.colname = table2.colname <u>FULL JOIN</u> SELECT colnames[s] FROM table1 FULL OUTER JOIN table2 ON table1.colname = table2.colname WHERE condition;

SQL UNION SELECT t1.col1 from t1 UNION select t2.col1 from t2	SQL CASE WHEN CASE WHEN condition1 THEN result1 WHEN condition2 THEN result2 ELSE result END
SQL Aggregate Functions SELECT COUNT(col_name) FROM table_name where condition; SELECT SUM(col_name) FROM table_name where condition;	SELECT AVG(col_name) FROM table_name where condition; SELECT MAX(col_name) FROM table_name where condition; SELECT MIN(col_name) FROM table_name where condition;
SQL Regular Expressions, Substring SELECT SUBSTRING(string, start, length) FROM table_name SELECT col1, col2 FROM table_name WHERE coln LIKE pattern;	SQL NULL Functions SELECT COALESCE(expression,0)
SQL Subqueries SELECT col_name[s] FROM table_name WHERE col_name OPERATOR (SELECT column_name from table Where condition)	SQL Common Table Expression WITH Clause With <temp table name> as(Select col[n] FROM <table name> Where condition;)

SQL Window Functions Row Number: SELECT col1, col2, ROW_NUMBER() OVER(ORDER BY col3) row_number FROM table_name	RANK(): SELECT col1, col2, RANK() OVER(ORDER BY col3) row_number FROM table_name
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