

SQL Cheat Sheet: FUNCTIONS and Implicit JOIN



Skills
Network

Command	Syntax	Description	Example
COUNT	SELECT COUNT(column_name) FROM table_name WHERE condition;	COUNT function returns the number of rows that matches a specified criterion.	SELECT COUNT(dep_id) FROM employees;
AVG	SELECT AVG(column_name) FROM table_name WHERE condition;	AVG function returns the average value of a numeric column.	SELECT AVG(salary) FROM employees;
SUM	SELECT SUM(column_name) FROM table_name WHERE condition;	SUM function returns the total sum of a numeric column.	SELECT SUM(salary) FROM employees;
MIN	SELECT MIN(column_name) FROM table_name WHERE condition;	MIN function returns the smallest value of the SELECTed column.	SELECT MIN(salary) FROM employees;
MAX	SELECT MAX(column_name) FROM table_name WHERE condition;	MAX function returns the largest value of the SELECTed column.	SELECT MAX(salary) FROM employees;
ROUND	SELECT ROUND(2number, decimals, operation) AS RoundValue;	ROUND function rounds a number to a specified number of decimal places.	SELECT ROUND(salary) FROM employees;
LENGTH	SELECT LENGTH(column_name) FROM table;	LENGTH function returns the length of a string (in bytes).	SELECT LENGTH(f_name) FROM employees;
UCASE	SELECT UCASE(column_name) FROM table;	UCASE function that displays the column name in each table in uppercase.	SELECT UCASE(f_name) FROM employees;
DISTINCT	SELECT DISTINCT(column_name) FROM table;	DISTINCT function is used to display data without duplicates.	SELECT DISTINCT(UCASE(f_name)) FROM employees;
DAY	SELECT DAY(column_name) FROM table	DAY function returns the day of the month for a given date	SELECT DAY(b_date) FROM employees where emp_id = 'E1002';
CURRENT DATE	SELECT (CURRENT DATE - COLUMN) FROM table;	CURRENT DATE is used to display the current date. This can be subtracted from the previous date to get the difference.	SELECT YEAR(CURRENT DATE - b_date) As AGE, CURRENT_DATE, b_date FROM employees;

Subquery	<pre>SELECT column_name [, column_name] FROM table1 [, table2] WHERE column_name OPERATOR (SELECT column_name [, column_name] FROM table1 [, table2] [WHERE])</pre>	<p>Subquery is a query within another SQL query and embedded within the WHERE clause.</p> <p>A subquery is used to return data that will be used in the main query as a condition to further restrict the data to be retrieved.</p>	<pre>SELECT emp_id, fname, lname, salary FROM employees where salary < (SELECT AVG(salary) FROM employees);</pre> <pre>SELECT * FROM (SELECT emp_id, f_name, l_name, dep_id FROM employees) AS emp4all;</pre>
Implicit Inner Join	<pre>SELECT column_name(s) FROM table1, table2 WHERE table1.column_name = table2.column_name;</pre>	<p>Implicit Inner Join combines the two or more records but displays only matching values in both tables. Inner join applies only the specified columns.</p>	<pre>SELECT * FROM employees WHERE job_id IN (SELECT job_id FROM jobs);</pre> <pre>SELECT * FROM employees, jobs where employees.job_id = jobs.job_id;</pre>
Implicit Cross Join	<pre>SELECT column_name(s) FROM table1, table2;</pre>	<p>Implicit Cross Join defines as a Cartesian product where the number of rows in the first table multiplied by the number of rows in the second table..</p>	<pre>SELECT * FROM employees, jobs;</pre>

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Changelog

Date	Version	Changed by	Change Description
2023-05-04	1.1	Benny Li	Formatting changes
2021-07-28	1.0	Lakshmi Holla	Initial Version