SQL Cheat Sheet: FUNCTIONS and Implicit JOIN



Command	Syntax	Description	Example
COUNT	<pre>SELECT COUNT(column_name) FROM table_name WHERE condition;</pre>	COUNT function returns the number of rows that matches a specified criterion.	<pre>SELECT COUNT(dep_id) FROM employees;</pre>
AVG	<pre>SELECT AVG(column_name) FROM table_name WHERE condition;</pre>	AVG function returns the average value of a numeric column.	SELECT AVG(salary) FROM employees;
SUM	<pre>SELECT SUM(column_name) FROM table_name WHERE condition;</pre>	SUM function returns the total sum of a numeric column.	SELECT SUM(salary) FROM employees;
MIN	<pre>SELECT MIN(column_name) FROM table_name WHERE condition;</pre>	MIN function returns the smallest value of the SELECTed column.	
MAX	<pre>SELECT MAX(column_name) FROM table_name WHERE condition;</pre>	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	<pre>SELECT LENGTH(column_name) FROM table;</pre>	LENGTH function returns the length of a string (in bytes).	<pre>SELECT LENGTH(f_name) FROM employees;</pre>
UCASE	<pre>SELECT UCASE(column_name) FROM table;</pre>	UCASE function that displays the column name in each table in uppercase.	<pre>SELECT UCASE(f_name) FROM employees;</pre>
DISTINCT	SELECT DISTINCT(column_name) FROM table;	DISTINCT function is used to display data without duplicates.	<pre>SELECT DISTINCT(UCASE(f_name)) FROM employees;</pre>
DAY	SELECT DAY(column_name) FROM table	DAY function returns the day of the month for a given date	<pre>SELECT DAY(b_date) FROM employees where emp_id = 'E1002';</pre>
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.	<pre>SELECT YEAR(CURRENT DATE - b_date) As AGE, CURRENT_DATE, b_date FROM employees;</pre>
Subquery	SELECT column_name [, column_name] FROM table1 [, table2] WHERE column_name OPERATOR (SELECT column_name [, column_name] FROM table1 [, table2] [WHERE])	Subquery is a query within another SQL query and embedded within the WHERE clause.	<pre>SELECT emp_id, fmame, lname, salary FROM employees where salary < (SELECT AVG(salary) FROM employees);</pre>
	[,] [=]/	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.	SELECT * FROM (SELECT emp_id, f_name, l_name, dep_id FROM employees) AS emp4all;

SELECT * FROM employees WHERE
job_id IN (SELECT job_ident
FROM jobs);

Implicit Inner Join combines

SELECT column_name(s) FROM table1, table2 WHERE table1.column_name = table2.column_name;

Implicit Inner Join combines the two or more records but select * FROM employees, jobs displays only matching values in where employees.job_id = both tables. Inner join applies jobs.job_ident; only the specified columns.

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Implicit Inner Join combines

Implicit Cross Join defines as a Cartesian product where the number of rows in the first table table1, table2;

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..

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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