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.	SELECT MIN(salary) FROM employees;
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	<pre>SELECT DISTINCT(column_name) FROM table;</pre>	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.	SELECT YEAR(CURRENT DATE - b_date) As AGE, CURRENT_DATE, b_date FROM employees;

	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.		<pre>SELECT * FROM (SELECT emp_id, f_name, l_name, dep_id FROM employees) AS emp4all;</pre>	
		<pre>SELECT * FROM employees WHERE job_id IN (SELECT job_ident FROM jobs);</pre>	
	Implicit Inner Join combines the two or more records but displays only matching values in both tables. Inner join applies only the specified columns.	<pre>SELECT * FROM employees, jobs where employees.job_id = jobs.job_ident;</pre>	
	Implicit Chass Join defines as a Cartesian		

SELECT * FROM employees, jobs;

SELECT column name [, column name] FROM table1 [, table2] WHERE column name Subquery OPERATOR (SELECT column name [, column name | FROM table1 [, table2] [WHERE])

Implicit Inner Join

SELECT column name(s) FROM table1, table2 WHERE table1.column name =

table2.column name;

Implicit Cross Join

SELECT column name(s) FROM 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 Formatting changes Benny Li Lakshmi Holla Initial Version 2021-07-28 1.0