SQL Cheat Sheet: FUNCTIONS and Implicit JOIN



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).	<pre>SELECT LENGTH(f_name) FROM employees;</pre>	
UCASE	SELECT UCASE(column_name) FROM table;	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.	SELECT YEAR(CURRENT DATE - b_date) As AGE, CURRENT_DATE, b_date FROM employees;
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. 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 emp_id, fmame, lname, salary FROM employees where salary < (SELECT AVG(salary) FROM employees); 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	SELECT column_name(s) FROM table1, table2 WHERE table1.column_name = table2.column_name;	Implicit Inner Join combines the two or more records but displays only matching values in both tables. Inner join applies only the specified columns.	SELECT * FROM employees, jobs where employees.job_id = jobs.job_ident;
Implicit Cross Join	<pre>SELECT column_name(s) FROM table1, table2;</pre>	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	SELECT * FROM employees, jobs;

Author(s)

<u>Lakshmi Holla</u>

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