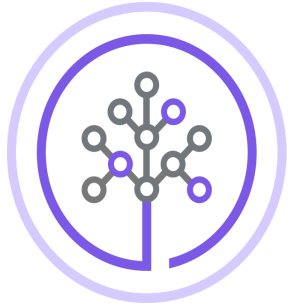


SQL Cheat Sheet: FUNCTIONS and Implicit JOIN



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; |

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|---------------------|---|---|--|
| 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, ffname, 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_ident FROM jobs);</pre> <pre>SELECT * FROM employees, jobs where employees.job_id = jobs.job_ident;</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 |