
COMMON TABLE EXPRESSION (CTE) IN SQL

SQL Series Part 13

-Mayuri Dandekar

COMMON TABLE EXPRESSION




Common Table Expressions (CTEs) are temporary result sets that are defined within the scope of a single SELECT, INSERT, UPDATE, DELETE, or CREATE VIEW statement in SQL.

They provide a way to write more **readable and maintainable** queries by breaking them down into smaller, named, and reusable parts.

Syntax—

```
WITH my_cte AS (  
    SELECT a,b,c  
    FROM Table1 )  
  
SELECT a,c  
FROM my_cte
```

SAMPLE DATASET

Result Grid   Filter Rows: <input type="text"/> Edit: 					
	id	first_name	last_name	department	salary
▶	1	john	doe	sales	50000
	2	jane	smith	marketing	60000
	3	alice	johnson	it	70000
	4	bob	brown	sales	55000
	5	emma	davis	marketing	65000
⊙	NULL	NULL	NULL	NULL	NULL

Find the average number of employees per department

```
3 • WITH department_employee_count AS (  
4     SELECT department, COUNT(*) AS num_employees  
5     FROM employees  
6     GROUP BY department  
7 )  
8 SELECT department, num_employees,  
9     AVG(num_employees) OVER () AS avg_num_employees  
10 FROM department_employee_count;
```

Result Grid



Filter Rows:

Export:



Wrap Cell Content:



	department	num_employees	avg_num_employees
▶	sales	2	1.6667
	marketing	2	1.6667
	it	1	1.6667



THANK YOU!!!

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