POSTGRESQL CTE


```
dvdrental/postgres@PostgreSQL 13 ∨

Query Editor   Query History   Explain   Notifications

1  --CTE Example
2  WITH cte_film AS (
3      SELECT
4          film_id,
5          title,
6          (CASE
7              WHEN length < 30 THEN 'Short'
8              WHEN length < 90 THEN 'Medium'
9              ELSE 'Long'
10         END) length    FROM
11         film ) SELECT
12     film_id,
13     title,
14     length
15 FROM
16     cte_film
17 WHERE
18     length = 'Long'
19 ORDER BY
20     title;
```

Data Output

	film_id [PK] integer	title character varying (255)	length text
1	4	Affair Prejudice	Long
2	5	African Egg	Long
3	6	Agent Truman	Long
4	9	Alabama Devil	Long
5	11	Alamo Videotape	Long
6	12	Alaska Phantom	Long
7	13	Ali Forever	Long
8	14	Alice Fantasia	Long
9	16	Alley Evolution	Long
10	19	Amadeus Holy	Long
11	21	American Circus	Long
12	23	Anaconda Confessions	Long
13	24	Analyze Hoosiers	Long
14	27	Anonymous Human	Long
15	28	Anthem Luke	Long
16	29	Antitrust Tomatoes	Long
17	31	Apache Divine	Long

```
dvdrental/postgres@PostgreSQL 13 ∨

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1  --how to join a CTE with a table
2  WITH cte_rental AS (
3      SELECT staff_id,
4          COUNT(rental_id) rental_count
5      FROM   rental
6      GROUP  BY staff_id
7  )
8  SELECT s.staff_id,
9      first_name,
10     last_name,
11     rental_count
12 FROM staff s
13     INNER JOIN cte_rental USING (staff_id);
```

Data Output

	staff_id [PK] integer	first_name character varying (45)	last_name character varying (45)	rental_count bigint
1	1	Mike	Hillyer	8040
2	2	Jon	Stephens	8004

Using CTE with a window function

```sql
--This illustrates how to use the CTE with the RANK() window function
WITH cte_film AS  (
    SELECT film_id,
        title,
        rating,
        length,
        RANK() OVER (
            PARTITION BY rating
            ORDER BY length DESC)
        length_rank
    FROM
        film
)
SELECT *
FROM cte_film
WHERE length_rank = 1;
```

Data Output

	film_id [PK] integer	title character varying (255)	rating mpaa_rating	length smallint	length_rank bigint
1	182	Control Anthem	G	185	1
2	212	Darn Forrester	G	185	1
3	609	Muscle Bright	G	185	1
4	991	Worst Banger	PG	185	1
5	141	Chicago North	PG-13	185	1
6	349	Gangs Pride	PG-13	185	1
7	690	Pond Seattle	PG-13	185	1
8	817	Soldiers Evolution	R	185	1
9	426	Home Pity	R	185	1

dvdrental/postgres@PostgreSQL 13

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