

# pg\_stat\_user\_tables shows some NULL columns on Read Replicas

Last updated by | Daniel Valero | Mar 10, 2023 at 9:59 AM PST

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## Issue

*pg\_stat\_user\_tables* shows some NULL columns on Read Replicas

## Investigation/Analysis

In read replicas, columns about vacuum, autovacuum, analyze and autoanalyze show empty values

```
select schemaname, relname, seq_scan, last_vacuum, last_analyze, last_autoanalyze
from pg_stat_user_tables;
```

Query		Query History				
1		select schemaname, relname, last_vacuum, last_autovacuum, last_analyze, last_autoanalyze				
2		from pg_stat_user_tables;				
3						
Data Output		Messages				
	schemaname name	relname name	last_vacuum timestamp with time zone	last_autovacuum timestamp with time zone	last_analyze timestamp with time zone	last_autoanalyze timestamp with time zone
1	public	language	[null]	[null]	[null]	[null]
2	public	film	[null]	[null]	[null]	[null]
3	public	city	[null]	[null]	[null]	[null]
4	public	payment_p2022_07	[null]	[null]	[null]	[null]
5	public	payment_p2022_06	[null]	[null]	[null]	[null]
6	public	rental	[null]	[null]	[null]	[null]
7	public	store	[null]	[null]	[null]	[null]
8	public	category	[null]	[null]	[null]	[null]
9	public	actor	[null]	[null]	[null]	[null]
10	public	payment_p2022_04	[null]	[null]	[null]	[null]
11	public	payment_p2022_05	[null]	[null]	[null]	[null]
12	public	payment_p2022_02	[null]	[null]	[null]	[null]
13	public	address	[null]	[null]	[null]	[null]
14	public	customer	[null]	[null]	[null]	[null]
15	public	payment_p2022_03	[null]	[null]	[null]	[null]
16	public	staff	[null]	[null]	[null]	[null]
17	public	payment_p2022_01	[null]	[null]	[null]	[null]
18	public	inventory	[null]	[null]	[null]	[null]
19	public	film_category	[null]	[null]	[null]	[null]
20	public	country	[null]	[null]	[null]	[null]
21	public	rental_by_category	[null]	[null]	[null]	[null]
22	public	film_actor	[null]	[null]	[null]	[null]

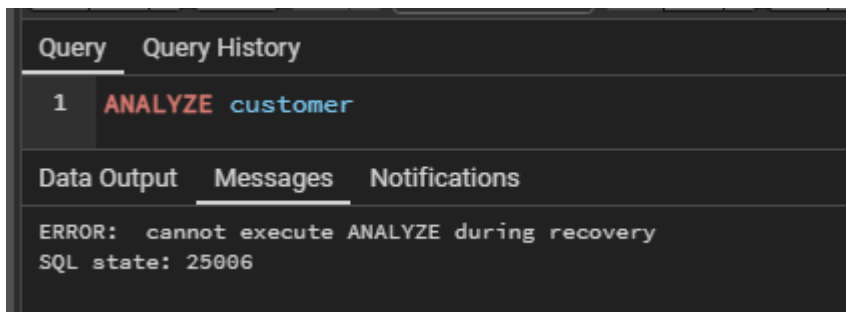
## Mitigation

### This is an expected behavior.

In the read replica this columns are NULL in *pg\_stat\_user\_tables* because the database is in "recovery" mode and therefore no statistics update or VACUUM processes occur in the replica. As these processes do not occur, there is no information to display in *pg\_stat\_user\_tables*.

You can confirm what I mention by trying to do a VACUUM or ANALYZE on the read replica.

Query		Query History				
1		VACUUM customer				
Data Output		Messages				
		ERROR: cannot execute VACUUM during recovery				
		SQL state: 25006				



## More Information (optional)

Some customers have expressed concern about this lack of statistics in the read replica can affect performance in the read replica as it can affect the creation of execution plans

There are two types of statistics:

- Operation statistics. What you see by querying *pg\_stat\_user\_tables* and the like, and they have no impact on the execution plan.
- The data distribution statistics in the database tables. What you see when querying *pg\_stats*. These are the statistics that PostgreSQL uses when creating the execution plan. These statistics are replicated so there is no affectation to the execution plans for queries running on the replica.