

## 5 cr pluse dead tuple in table which one is better:-

**50 million (5 crore) dead tuples** in a table that's becoming **slow to query**, especially with a `GROUP BY + HAVING` aggregation.

### VACUUM VS VACUUM FULL — Which One is Better in Your Case?

| Feature                 | VACUUM                           | VACUUM FULL                        |
|-------------------------|----------------------------------|------------------------------------|
| Reclaims Space          | Marks space for reuse (not disk) | Shrinks table, releases disk space |
| Locks Table             | ✗ No (non-blocking)              | ✓ Yes (exclusive lock during run)  |
| Fixes Bloat             | Partially                        | ✓ Fully                            |
| Query Performance Boost | Medium                           | ✓ High                             |
| Use Case                | Routine cleanup                  | Heavy bloat situations             |

Recommendation:-

Since the table has a very high number of dead tuples (around 5 crore), we recommend performing a `VACUUM FULL` during off-peak hours. This will fully clean the table, improve query performance, and reduce disk usage.

### Here's Why Vacuum Improves Performance:

| Type        | What It Does   | Impact on Query |
|-------------|--|-----------------|
| VACUUM      | <ul style="list-style-type: none"><li>- Marks dead tuples for reuse</li><li>- Updates visibility map for index-only scans</li></ul>        | ✓ Moderate      |
| VACUUM FULL | <ul style="list-style-type: none"><li>- Physically removes dead tuples</li><li>- Rewrites the table</li><li>- Shrinks disk usage</li></ul> | ✓✓ High         |

Run: ANALYZE cases; after VACUUM to refresh query planner statistics.