

# Important Topics

<https://use-the-index-luke.com/>

<https://www.postgresqltutorial.com/postgresql-tutorial/postgresql-explain/>

<https://thoughtbot.com/blog/reading-an-explain-analyze-query-plan>

<https://use-the-index-luke.com/sql/explain-plan/postgresql/operations>

<https://www.youtube.com/watch?v=BHwzDmr6d7s>

Summary of the video:

Sargable queries -> search argument able -> these queries can use indexing to leverage the speed of execution...

Sargable query -> where order\_date >= '2021-05-21';  
In sargable query we directly compare column (on which index is made) with some value.

Non sargable query -> where year(order\_date) >= 2021;  
This prevents from using index as function must be applied to every row in the table.

To write sargable queries:

- Avoid using functions or calculations on indexed columns in the where clause.
- Use direct comparison when possible, instead of wrapping the column in function
- If we need to use a function on a column, consider creating a computed column or a function-based index, if the database system supports it.

Execution order ->

From , join, where, group by, having, select, order by, limit

Optimise select clauses:

Considering indexes covering all columns needed for the query especially in the select, where, and join clauses.

This helps database to directly get the columns from the index speeding the process.