Tosska SQL Tuning Expert for Oracle

An innovative machine tuning tool for SQL statements

Why SQL tuning?

SQL Tuning is the process of ensuring that the SQL statements will run within the fastest possible time. Just like there may be ten different ways for you to drive from work to your home, there may be thousands of different ways to execute a query. Tuning SQL statements is finding the fastest route to execute your SQL statements. In order to tune a SQL statement, you are required to know your database architecture and have in-depth knowledge of SQL tuning skill. There are a lot of SQL tuning tips in the market, but most of them are good only in specific database environment. You need to try those tips one by one manually on your databases. It is not only time-consuming, but there is also no guarantee that you will find the best performance solution for your SQL statements.

Expensive SQL tuning effort by human expert

It may be up to days or weeks for a DBA or experienced SQL developer to tune a problematic SQL statement. SQL tuning is a very skillful job that not many developers are able to carry out in an enterprise. Should such expensive and valuable time be saved and used for other even more productive tasks inside a company?

What is machine tuning for SQL statements?

Tosska SQL Tuning Expert is a SQL tuning tool that optimizes your SQL statements without the need of user's involvement. The product will give you the ultimate SQL performance solution by just point and click. What you have to do is to input your problematic SQL statement into the product and press a button. You don't have to do analysis, guessing or testing during the entire SQL tuning process. The improved SQL statement will be benchmarked with your original SQL statement side by side without suspicion.

Summary

Explore SQL Alternatives Summary

78 SQLs with unique execution plan are found after investigation of 500 SQL alternatives.

Test Run Summary

Best SQL Alternative Found: SQL 54

Name	Elapsed Time	Improvement	Execute Method	Timing Method
Original	00:00:14.48	N/A	Dynamic	Run all 2 times if original S...
SQL 54	00:00:01.45	89.99%	Dynamic	Run all 2 times if original S...

Best SQL Alternative Criteria: Elapsed time

Plan Summary

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ALTERNATIVE WISDOM

The machine tuning for SQL statements is a proprietary technology invented by Tosska to mimic a human expert SQL tuning process, in which the engine tries every possible Oracle Hints combinations for a SQL statement to improve the execution speed. As the permutation of Oracle Hints combinations to a SQL statement is so huge, it is impossible for a human expert to accomplish it for complex SQL statements. Furthermore, it is also no way for a DBA or developer to guarantee that the best solution is found after a lot of trials and errors.

Best solution without trial and error

With Tosska SQL Tuning Expert, users no longer need to rewrite or try every possible hints combination manually to the SQL statement to explore potential better performance execution plans, since all those hard tasks are released by the embedded AI engine. Our intelligent engine will help you to find every possible Hints combination to improve your SQL speed without the need of your intervention. You just sit back, relax, and wait for the best SQL alternative to come up on your screen.
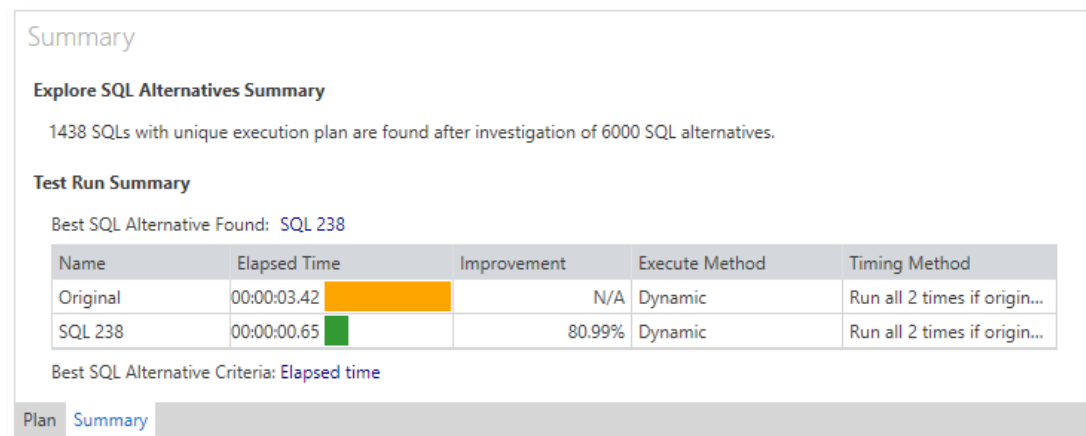
Provide even better than a human expert's solution

Tuning SQL is a time consuming job that requires in-depth knowledge on SQL tuning skill and most SQL developers are not trained to accomplish this job apart from their daily development tasks. Furthermore, there is no way for a DBA to explore all alternative execution plans within a short time. The following screenshot shows that Tosska SQL Tuning Expert can explore thousands of SQL alternatives in just a few minutes that may require a human expert months' effort to do.

After the benchmarking partial or all SQL alternative execution plans, the best SQL alternative will be displayed with Original SQL statement side by side on the screen. The process is fully automatic without the need of user's involvement and the result is the best out of thousands of potential execution plans that Oracle can generate for this SQL statement. This exhaustive search and test process is impossible to be accomplished by a human expert.

Uncompromised SQL tuning solution within manageable time

It is known that the longer you spend on the SQL tuning process, the more chance you may get a better SQL alternative. It is also true in Tosska SQL Tuning Expert that the user can adjust the Intelligent Level to control the time to spend on a specific SQL statement according to the complexity of your SQL statement. For complex SQL statements with huge potential execution plans, user can allocate more resource and time to explore the ultimate performance solution for the SQL.

The predefined intelligent level is 5 sets of "Preselected Hints" and "Maximum number of SQL to investigate" setting to control the size of search space. The larger the search space, the more chance the engine can find a better SQL solution for a problematic SQL statement.

The "User Define" option is also available to experienced users to tackle complicated SQL performance problems with manual specification of hints and maximum number of SQL to investigate during the tuning process.