

Task 4: How do you measure the performance of a database engine?

The unit in which the performance of a database is measured is QPS (Queries per Second), which is based on the number of queries that a database can execute in a given period of time, but it fails in that it may not be the same query, it may have inserts, updates, or selects, you can present searches based on indexes or primary keys, complex queries that join different tables, you can compare the performance of a single query or a specific combination of queries, this is precisely controlled, but that is all regarding what can be done with QPS.

TPS (Transactions per Second) is also used as a measure, this approach looks at how many transactions can be executed in a period of time, but it presents problems like those of QPS. Latency (P99) is also used as a way of measuring the processes generated in the CPU cores that process transactions or queries, and with this model a greater volume of queries is sought in the same time, lowering the speed a little but greatly increasing the stability and quality of query processing.

In real use the workload changes and it is not really easy to know what series of queries can be used to compare the performance between different configuration versions.