**Query Optimization:**

By analyzing the query performance using EXPLAIN ANALYZE, we observed a significant improvement after indexing the artist column.

* Before indexing, the query had an execution time of 5.59 ms and a planning time of 0.121 ms.
* After creating an index on the artist column, the execution time reduced drastically to 0.091 ms, with a slight improvement in planning time to 0.116 ms.

This clearly demonstrates that indexing on frequently filtered or grouped columns like artist can greatly enhance query performance, especially for larger datasets.

**Before creating Index**

A screenshot of a computer

AI-generated content may be incorrect.

**Graphical Illustration:**

A screenshot of a computer

AI-generated content may be incorrect.

**After creating index on artist**

A screenshot of a computer

AI-generated content may be incorrect.

**Graphical illustration:**

A screenshot of a computer

AI-generated content may be incorrect.