

# Project Proposal

**Project Name:** SQL TUNER.

## SQL Tuner - Database Optimizer - C# + SQL Server

### Problem Statement:

The normal scenario in today's industry is whenever a programmer or a developer writes a new query; they have to submit the query to the DBA of the company for tuning it. Even DBA was not able to tune the query to the fullest and even if it has been tuned it would take lots of time and resources of the DBA's. During the crunch time it is not possible to tune each and every query. The DBA's has to rely on his experience to do the tuning As there are no set rules for tuning it. Sometimes even the experienced DBA was not able to tune the query.

### Why SQL Tuner?

This topic was chosen to reduce the work of DBA's of tuning the query. This tool can be used even by the developer to tune the queries instead of going to the DBA for tuning it.

### Project Scope:

This project is developed for tuning SQL Queries. Tuning can be done by reducing the total CPU time and also reducing the I/O taken by the Query.

Tuning is done in two ways:

- **Syntax Tuning :**

Checking the logical and physical operators used by the query.

- **Index Tuning :**

Checking the indexes used in the query (if any) and which indexes can be applied to the columns used in the query.

### Methodology:

User types its queries in the interface provided by the software. The user has two choices either of tuning or executing the query. If tuning is been selected the software just gives the suggestions for improving the performance of the query. If executing is been selected the software just execute the query. Other than this it provides almost all the facilities provided by the Query Analyzer of MS SQL.

To buy complete ready to submit synopsis, project report, source code, and data base script.

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## Software Requirements:

- Visual Studio 2015 or Higher
- SQL Server 2014 or Higher

## Hardware Requirements:

Processor: Preferably 1.0 GHz or Greater.

RAM : 128 MB or Greater.

## Limitations of the Software:

This project was made to understand how the SQL Server parses and tunes the query internally. So, we have just been able to tune simple queries.

## Future Enhancements:

- To tune more complex and bigger queries.
- To study the database structure and provide the user with suggestions to improve the database structure for best performance.

## Project Details:

- No of Form, Pages, Reports in project source : 10
- No of database tables : NA
- No of pages in project report : 119

## Project Demo:

<https://youtu.be/5aLsukBjJUJ>

## For buy this project:

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