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# Database Optimization Techniques using Microsoft SQL Server

The main problem when accessing a database is the response time. The research was applied, used two databases, one control and one experimental. Three computers have been used for the execution of ten queries to the two databases, running 4 consecutive times and obtaining an average execution time. The results found were that there are database optimization techniques that negatively affect the response time of the queries such as: the creation of nonclustered indexes in primary keys. It is concluded that the creation of the database must involve not only the satisfaction of functional requirements but the use of techniques to optimize the database, being the most efficient: the creation of clustered indexes in frequent tables, nonclustered indexes in keys foreign, the use of calculated columns, of appropriate operators and list of columns in the queries and the least efficient ones, such as the creation of nonclustered indexes in primary keys

## Tipo de resumen

**Primary author(s) :**   Ms MAQUEN NIÑO, Gisella Luisa Elena (Universidad nacional Pèdro Ruiz Gallo);  Mr TERAN SANTA CRUZ, Franklim Edinson (Universidad Nacional Pedro Ruiz Gallo)

**Presenter(s) :**   Ms MAQUEN NIÑO, Gisella Luisa Elena (Universidad nacional Pèdro Ruiz Gallo);  Mr TERAN SANTA CRUZ, Franklim Edinson (Universidad Nacional Pedro Ruiz Gallo)

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