

T-SQL Best Practices

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Correlated Sub-Queries

- ✓ Executed for each and every value returned by the outer query
- ✓ Causes Row by Row processing
- ✓ Replace it with Joins and derived tables

Scalar function

- ✓ Causes row by row processing similar to cursors
- ✓ Generally used to combine the commonly used logic as a function
- ✓ Replace it with Inline table valued function

NOT IN clause

- ✓ Returns unexpected result when the sub query has NULL values
- ✓ Searching for excluded values is costly for the optimizer
- ✓ Replace it with NOT EXISTS or LEFT OUTER JOIN

UNION VS UNION ALL

- ✓ UNION will pull only the DISTINCT values and SORTS the result set
- ✓ Sorting is expensive and hence avoid UNION wherever possible
- ✓ Replace it with UNION ALL if possible

Table Variables

- ✓ Used for Temporary storage of result sets
- ✓ Cannot define any other index other than PK
- ✓ Will be problematic for data sets exceeding 8KB data
- ✓ Replace it with temporary tables

Implicit Column Conversion

- ✓ Column data type is of lower precedence than the parameter passed
- ✓ Causes Index or Table scan
- ✓ To avoid it pass the parameter with the same data type or lower than that of your column

Search Queries

- ✓ Search across multiple columns using parameters
- ✓ Causes scan over seek
- ✓ Replace it with parameterized dynamic SQL

SET NOCOUNT option

- ✓ Suppresses the message for all subsequent transactions in your session until SET NOCOUNT OFF is specified
- ✓ Inserting 10000 records with SET NOCOUNT ON takes 5sec whereas SET NOCOUNT OFF takes 7sec

General guidelines

- ✓ Avoid Cursors
- ✓ Avoid search using LIKE with leading wildcard as it will not use the index
- ✓ Avoid using functions in the WHERE clause as it will not use the index
- ✓ Use UPDATE FROM and DELETE FROM clauses for updating/deleting from multiple tables

Resources

<http://sqlinthewild.co.za/index.php/2008/11/30/pass-demos/>

http://sqlblog.com/blogs/jonathan_kehayias/

<http://jahaines.blogspot.com/>

<http://blogs.msdn.com/craigfr/>



Thank you!