**T-SQL static code analysis**

Unique rules to find Bugs, Vulnerabilities, Security Hotspots, and Code Smells in your T-SQL code

### ["DELETE" and "UPDATE" statements should contain "WHERE" clauses](https://rules.sonarsource.com/tsql/RSPEC-1590)

[Bug](https://rules.sonarsource.com/tsql/RSPEC-1590)

### [Hard-coded credentials are security-sensitive](https://rules.sonarsource.com/tsql/RSPEC-2068)

[Security Hotspot](https://rules.sonarsource.com/tsql/RSPEC-2068)

### [The number of variables in a FETCH statement should match the number of columns in the cursor](https://rules.sonarsource.com/tsql/RSPEC-4103)

[Bug](https://rules.sonarsource.com/tsql/RSPEC-4103)

### ["CASE" input expressions should be invariant](https://rules.sonarsource.com/tsql/RSPEC-4094)

[Bug](https://rules.sonarsource.com/tsql/RSPEC-4094)

### [Nullable subqueries should not be used in "NOT IN" conditions](https://rules.sonarsource.com/tsql/RSPEC-3641)

[Bug](https://rules.sonarsource.com/tsql/RSPEC-3641)

### [Using weak hashing algorithms is security-sensitive](https://rules.sonarsource.com/tsql/RSPEC-4790)

[Security Hotspot](https://rules.sonarsource.com/tsql/RSPEC-4790)

### [Dynamically executing code is security-sensitive](https://rules.sonarsource.com/tsql/RSPEC-1523)

[Security Hotspot](https://rules.sonarsource.com/tsql/RSPEC-1523)

### ["SELECT" statements used as argument of "EXISTS" statements should be selective](https://rules.sonarsource.com/tsql/RSPEC-4801)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-4801)

### [Size should be specified for "varchar" variables and parameters](https://rules.sonarsource.com/tsql/RSPEC-4078)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-4078)

### [Conditionally executed code should be denoted by either indentation or BEGIN...END block](https://rules.sonarsource.com/tsql/RSPEC-3973)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-3973)

### [Conditionals should start on new lines](https://rules.sonarsource.com/tsql/RSPEC-3972)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-3972)

### ["INSERT" statements should explicitly list the columns to be set](https://rules.sonarsource.com/tsql/RSPEC-1745)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-1745)

### [Output parameters should be assigned](https://rules.sonarsource.com/tsql/RSPEC-4196)

[Bug](https://rules.sonarsource.com/tsql/RSPEC-4196)

### [Queries that use "TOP" should have an "ORDER BY"](https://rules.sonarsource.com/tsql/RSPEC-4054)

[Bug](https://rules.sonarsource.com/tsql/RSPEC-4054)

### [All branches in a conditional structure should not have exactly the same implementation](https://rules.sonarsource.com/tsql/RSPEC-3923)

[Bug](https://rules.sonarsource.com/tsql/RSPEC-3923)

### ["WHERE" clause conditions should not be contradictory](https://rules.sonarsource.com/tsql/RSPEC-3633)

[Bug](https://rules.sonarsource.com/tsql/RSPEC-3633)

### [Unary prefix operators should not be repeated](https://rules.sonarsource.com/tsql/RSPEC-2761)

[Bug](https://rules.sonarsource.com/tsql/RSPEC-2761)

### ["NULL" should not be compared directly](https://rules.sonarsource.com/tsql/RSPEC-2527)

[Bug](https://rules.sonarsource.com/tsql/RSPEC-2527)

### [Related "IF"/"ELSE IF" statements and "WHEN" clauses in a "CASE" should not have the same condition](https://rules.sonarsource.com/tsql/RSPEC-1862)

[Bug](https://rules.sonarsource.com/tsql/RSPEC-1862)

### [Identical expressions should not be used on both sides of a binary operator](https://rules.sonarsource.com/tsql/RSPEC-1764)

[Bug](https://rules.sonarsource.com/tsql/RSPEC-1764)

### [All code should be reachable](https://rules.sonarsource.com/tsql/RSPEC-1763)

[Bug](https://rules.sonarsource.com/tsql/RSPEC-1763)

### [Loops with at most one iteration should be refactored](https://rules.sonarsource.com/tsql/RSPEC-1751)

[Bug](https://rules.sonarsource.com/tsql/RSPEC-1751)

### [Variables should not be self-assigned](https://rules.sonarsource.com/tsql/RSPEC-1656)

[Bug](https://rules.sonarsource.com/tsql/RSPEC-1656)

### ["GOTO" statements should not be used](https://rules.sonarsource.com/tsql/RSPEC-907)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-907)

### [Deprecated system tables and views should not be used](https://rules.sonarsource.com/tsql/RSPEC-4155)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-4155)

### ["ANSI\_NULLS", "ANSI\_PADDING" and "CONCAT\_NULL\_YIELDS\_NULL" should not be configured](https://rules.sonarsource.com/tsql/RSPEC-4154)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-4154)

### ["@@IDENTITY" should not be used](https://rules.sonarsource.com/tsql/RSPEC-4108)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-4108)

### ["COALESCE", "IIF", and "CASE" input expressions should not contain subqueries](https://rules.sonarsource.com/tsql/RSPEC-4104)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-4104)

### ["CHECK" or "NOCHECK" should be specified explicitly when constraints are activated](https://rules.sonarsource.com/tsql/RSPEC-4102)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-4102)

### [Deprecated features should not be used](https://rules.sonarsource.com/tsql/RSPEC-4075)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-4075)

### [Multiline blocks should be enclosed in BEGIN...END blocks](https://rules.sonarsource.com/tsql/RSPEC-2681)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-2681)

### [Two branches in a conditional structure should not have exactly the same implementation](https://rules.sonarsource.com/tsql/RSPEC-1871)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-1871)

### ["LIKE" clauses should not start with wildcard characters](https://rules.sonarsource.com/tsql/RSPEC-1739)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-1739)

### [Column names should be used in an "ORDER BY" clause](https://rules.sonarsource.com/tsql/RSPEC-1735)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-1735)

### [Queries should not join too many tables](https://rules.sonarsource.com/tsql/RSPEC-1631)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-1631)

### [Function and procedure names should comply with a naming convention](https://rules.sonarsource.com/tsql/RSPEC-1542)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-1542)

### [Columns to be read with a "SELECT" statement should be clearly defined](https://rules.sonarsource.com/tsql/RSPEC-1499)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-1499)

### ["CASE" expressions should not have too many "WHEN" clauses](https://rules.sonarsource.com/tsql/RSPEC-1479)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-1479)

### [Sections of code should not be commented out](https://rules.sonarsource.com/tsql/RSPEC-125)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-125)

### [Unused procedure and function parameters should be removed](https://rules.sonarsource.com/tsql/RSPEC-1172)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-1172)

### [Track uses of "FIXME" tags](https://rules.sonarsource.com/tsql/RSPEC-1134)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-1134)

### [Redundant pairs of parentheses should be removed](https://rules.sonarsource.com/tsql/RSPEC-1110)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-1110)

### [Functions and procedures should not have too many parameters](https://rules.sonarsource.com/tsql/RSPEC-107)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-107)

### [Collapsible "if" statements should be merged](https://rules.sonarsource.com/tsql/RSPEC-1066)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-1066)

### [Unused labels should be removed](https://rules.sonarsource.com/tsql/RSPEC-1065)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-1065)

### [Using hardcoded IP addresses is security-sensitive](https://rules.sonarsource.com/tsql/RSPEC-1313)

[Security Hotspot](https://rules.sonarsource.com/tsql/RSPEC-1313)

### [Column references should not have more than two-parts](https://rules.sonarsource.com/tsql/RSPEC-4149)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-4149)

### [Triggers should not "PRINT", "SELECT", or "FETCH"](https://rules.sonarsource.com/tsql/RSPEC-4109)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-4109)

### ["LIKE" clauses should not be used without wildcards](https://rules.sonarsource.com/tsql/RSPEC-3643)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-3643)

### [Jump statements should not be redundant](https://rules.sonarsource.com/tsql/RSPEC-3626)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-3626)

### ["CATCH" clauses should do more than rethrow](https://rules.sonarsource.com/tsql/RSPEC-2737)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-2737)

### [Boolean checks should not be inverted](https://rules.sonarsource.com/tsql/RSPEC-1940)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-1940)

### [Multiple variables should not be declared on the same line](https://rules.sonarsource.com/tsql/RSPEC-1659)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-1659)

### [Unused local variables should be removed](https://rules.sonarsource.com/tsql/RSPEC-1481)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-1481)

### [Local variable and parameter names should comply with a naming convention](https://rules.sonarsource.com/tsql/RSPEC-117)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-117)

### [Empty statements should be removed](https://rules.sonarsource.com/tsql/RSPEC-1116)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-1116)

### [Track uses of "TODO" tags](https://rules.sonarsource.com/tsql/RSPEC-1135)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-1135)

### [A primary key should be specified during table creation](https://rules.sonarsource.com/tsql/RSPEC-1614)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-1614)

### [Track lack of copyright and license headers](https://rules.sonarsource.com/tsql/RSPEC-1451)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-1451)

### [SHA-1 and Message-Digest hash algorithms should not be used in secure contexts](https://rules.sonarsource.com/tsql/RSPEC-2070)

[Vulnerability](https://rules.sonarsource.com/tsql/RSPEC-2070)

### ["NOCOUNT" should be activated on "PROCEDURE" and "TRIGGER" definitions](https://rules.sonarsource.com/tsql/RSPEC-4819)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-4819)

### [Control flow statements "IF", "WHILE" and "TRY" should not be nested too deeply](https://rules.sonarsource.com/tsql/RSPEC-134)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-134)

### ["CASE" expressions should end with "ELSE" clauses](https://rules.sonarsource.com/tsql/RSPEC-131)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-131)

### ["IF ... ELSEIF" constructs should end with "ELSE" clauses](https://rules.sonarsource.com/tsql/RSPEC-126)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-126)

### [Control structures should use BEGIN...END blocks](https://rules.sonarsource.com/tsql/RSPEC-121)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-121)

### [String literals should not be duplicated](https://rules.sonarsource.com/tsql/RSPEC-1192)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-1192)

### [Expressions should not be too complex](https://rules.sonarsource.com/tsql/RSPEC-1067)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-1067)

### ["WHERE" clauses should not contain redundant conditions](https://rules.sonarsource.com/tsql/RSPEC-3650)

[Bug](https://rules.sonarsource.com/tsql/RSPEC-3650)

### [Track lack of SQL Server session configuration](https://rules.sonarsource.com/tsql/RSPEC-4820)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-4820)

### [Duplicate values should not be passed as arguments](https://rules.sonarsource.com/tsql/RSPEC-4142)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-4142)

### [Track parsing failures](https://rules.sonarsource.com/tsql/RSPEC-2260)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-2260)

### [Functions and stored procedure should not have too many lines of code](https://rules.sonarsource.com/tsql/RSPEC-138)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-138)

### [Track uses of "NOSONAR" comments](https://rules.sonarsource.com/tsql/RSPEC-1291)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-1291)

### [Statements should be on separate lines](https://rules.sonarsource.com/tsql/RSPEC-122)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-122)

### ["WHEN" clauses should not have too many lines of code](https://rules.sonarsource.com/tsql/RSPEC-1151)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-1151)

### [Files should not have too many lines of code](https://rules.sonarsource.com/tsql/RSPEC-104)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-104)

### [Lines should not be too long](https://rules.sonarsource.com/tsql/RSPEC-103)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-103)

### [Reserved keywords should not be used as identifiers or object names](https://rules.sonarsource.com/tsql/RSPEC-4413)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-4413)

### [Non-standard comparison operators should not be used](https://rules.sonarsource.com/tsql/RSPEC-1742)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-1742)

### [Tabulation characters should not be used](https://rules.sonarsource.com/tsql/RSPEC-105)

[Code Smell](https://rules.sonarsource.com/tsql/RSPEC-105)