

Execute Dynamic SQL commands in SQL Server

By: [Greg Robidoux](#) | Updated: 2018-11-16 | [Comments \(55\)](#) | Related: [1](#) | [2](#) | [3](#) | [4](#) | [More](#) > [Dynamic SQL](#)

Problem

In some applications, having hard coded SQL statements is not appealing because of the dynamic nature of the queries being issued against the database server. Because of this sometimes there is a need to dynamically create a SQL statement on the fly and then run that command. This can be done quite simply from the application perspective where the SQL statement is built on the fly whether you are using ASP.NET, ColdFusion or any other programming language. But how do you do this from within a SQL Server stored procedure?

Solution

How to build dynamic SQL statement in SQL Server

SQL Server offers a few ways of running a dynamically built SQL statement. Here are a few options:

1. Writing a query with parameters
2. Using [EXEC](#)
3. Using [sp_executesql](#)

We will use the [AdventureWorks database](#) for the below examples.

Things to Note

Although generating SQL code on the fly is an easy way to dynamically build statements, it does have some drawbacks.

One issue is the potential for [SQL Injection](#) where malicious code is inserted into the command that is being built. The examples below are very simple to get you started, but you should be aware of SQL Injection and ways to prevent it by making sure your code is robust to check for any issues before executing the statement that is being built.

Another issue is the possible performance issues by generating the code on the fly

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