Sql-Executing Procedures

Executing Stored Procedures in SQL Server

Stored procedures are precompiled SQL statements that can be executed multiple times with different parameters. Here's a summary of executing stored procedures and an example:

Basic Syntax

To execute a stored procedure, use the following syntax:

```
EXEC procedure_name [(@parameter1, @parameter2, ...)];
```

- `procedure_name` is the name of the stored procedure to be executed.
- `@parameter1`, `@parameter2`, etc. are input parameters passed to the procedure.

Example

Let's create a simple stored procedure called `GetEmployeeDetails` that retrieves employee information based on an employee ID:

```
 CREATE PROCEDURE GetEmployeeDetails
    @EmpID INT
AS
BEGIN
    SELECT * FROM Employees WHERE EmpID = @EmpID;
END;
GO
```

To execute the stored procedure, use the following query:

```
EXEC GetEmployeeDetails @EmpID = 123;
```

This will return all columns for the employee with ID `123`.

Parameter Passing

Stored procedures can take input parameters that are passed to them using the `@` symbol. The data type of each parameter must match the data type of the corresponding variable in the procedure.

Out Parameters

Some stored procedures may also return output parameters, which can be used to store values returned by the procedure. To declare an out parameter, use the `OUTPUT` keyword:

```
 CREATE PROCEDURE GetEmployeeDetails
    @EmpID INT,
    @Name VARCHAR(50) OUTPUT
AS
BEGIN
    SELECT * FROM Employees WHERE EmpID = @EmpID;
    SET @Name = (SELECT Name FROM Employees WHERE EmpID = @EmpID);
END;
GO
```

To execute the stored procedure with an out parameter, use the following query:

```
 DECLARE @Name VARCHAR(50);
EXEC GetEmployeeDetails @EmpID = 123, @Name OUTPUT;
PRINT @Name;  -- prints the employee name
```

Best Practices

- Always use `sp_executesql` instead of `EXEC` when executing a stored procedure that takes input parameters.
- Use parameter sniffing to avoid SQL Server's optimizer from caching query plans based on parameter values.
- Avoid using out parameters unless absolutely necessary, as they can lead to performance issues.

I hope this summary and example help you understand how to execute stored procedures in SQL Server!

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