

Avoiding Hardcoding in SQL Server - Use Case Implementation

Use Case: Avoid Hardcoded Threshold and Schema in a Procedure

Objective:

Create a procedure to fetch high-value transactions from a table without hardcoding threshold amount or schema name. The threshold and schema name will be fetched from a central configuration table.

Step 1: Create Configuration Table

```
CREATE TABLE dbo.AppSettings (  
    SettingName VARCHAR(100) PRIMARY KEY,  
    SettingValue VARCHAR(500)  
);
```

-- Sample values

```
INSERT INTO dbo.AppSettings VALUES ('TransactionThreshold', '10000');  
INSERT INTO dbo.AppSettings VALUES ('SalesSchema', 'sales');
```

Step 2: Create a Utility Function

```
CREATE FUNCTION dbo.fn_GetSetting (@SettingName VARCHAR(100))  
RETURNS VARCHAR(500)  
AS  
BEGIN  
    DECLARE @Value VARCHAR(500);  
    SELECT @Value = SettingValue FROM dbo.AppSettings WHERE SettingName = @SettingName;  
    RETURN @Value;  
END;
```

Step 3: Create Procedure Using Config

```
CREATE PROCEDURE usp_GetHighValueTransactions  
AS  
BEGIN  
    DECLARE @Threshold INT = CAST(dbo.fn_GetSetting('TransactionThreshold') AS INT);  
    DECLARE @SchemaName NVARCHAR(100) = dbo.fn_GetSetting('SalesSchema');  
    DECLARE @SQL NVARCHAR(MAX);  
  
    SET @SQL = N'SELECT * FROM ' + QUOTENAME(@SchemaName) + '.Transactions WHERE Amount > ' +  
    CAST(@Threshold AS NVARCHAR);  
    EXEC sp_executesql @SQL;  
END;
```

Step 4: Execute the Procedure

```
EXEC usp_GetHighValueTransactions;
```