

Basics of Stored Procedures

SQL Server implements Client/Server technology. A number of client send queries to the Central Server. The server after receiving the query request, parses it for syntax errors and process the request. Since the query passes from the client to the server through the network it adds to network traffic. Hence an increase in the number of queries from the clients leads to network congestion and load on the server. A stored procedure can solve this problem.

It is a collection or batch of T-SQL statements and control-of-flow language that is stored under one name and executed as a single unit. It helps in improving the performance of the query. A stored procedure is a precompiled object and is readily available for the various applications to execute.

Features of stored procedures are:-

1. Improved Performance
2. Reduction in network congestion
3. Enhanced accuracy
4. Better consistency
5. Better security mechanism

Types of procedures

1. **User-Defined stored procedures** :- They are created and stored in the current database.
2. **System stored procedures** :- They have names prefixed with sp_. These primarily support various administrative tasks that help manage the SQL SERVER. System stored procedures are stored in the system database and are accessible to the users of all the database.
3. **Temporary stored procedures**:- It has names prefixed with the #symbol .They are stored in tempdb database and are automatically dropped when the connection terminates.
4. **Remote stored procedures** :- They are the procedures that are created and stored in databases on remote servers. These can be accessed from various servers, provided user has appropriate permissions.
5. **Extended stored procedures**:- These are dlls that are executed outside the SQL Server environment.

Syntax to create procedure is

Code:

```
CREATE PROCEDURE proc_name
AS
BEGIN
sql_statement1
sql_statement2
END
```

Where `proc_name` specifies the name of the stored procedure.

Syntax to execute procedure is

Code:

```
EXECUTE proc_name
```

Syntax to drop procedure is

Code:

```
DROP PROCEDURE proc_name
```

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