

# 1 Stored Procedures

stored procedure(SP) - sql code that can be run multiple times with different params  
types of SPs:

- user defined
- temporary - tempdb
- system

```
01 | CREATE PROCEDURE <pname> <@pname partype, ...>
02 | AS <sql statement>
03 | <RETURN ...> -- optional
04 |
05 | EXEC <pname> <@pname = parval, ...>
06 | EXEC @val = <pname> <params>
07 |
08 | SET NOCOUNT ON -- wont show how many rows affected
09 |
10 | @param type OUTPUT -- in create
11 | @param OUTPUT -- in EXEC, @param should be declared with same type
12 |
13 | SET ANSI_NULLS ON -- NULL comparisons always return NULL(as it is intended)
14 | SET QUOTED_IDENTIFIER ON -- allows to use quotes same way as brackets, otherwise thay are same as apostrophes
15 |
16 | ALTER PROCEDURE <pname>
17 | AS <statement>
18 |
19 | DROP PROCEDURE <pname>
20 |
21 | IF OBJECT_ID ('<pname>', 'P') IS NOT NULL
22 |     DROP PROCEDURE <pname>
23 |
24 | EXEC sp_rename '<old pname>', '<new pname>'
25 |
26 | sp_help -- info about db objs
27 |
28 | -- if # before <pname> it is a local temporary proc
29 | -- if ## it is global temp proc
30 |
```

# 2 computed columns

Computed column is column that aggregates existing columns, so it can't be SET, but can be SELECTed

```

01 | CREATE TABLE <tname> ( <col1>
02 |                        , <col2>
03 |                        ...
04 |                        , <colN> AS <col1> * <col2> PERSISTED
05 |                        ) -- e.g.
06 |                        -- PERSISTED is optional(it is stored rather than calculated on the fly)
07 |
08 | ALTER TABLE <tname>
09 | ADD <colname> AS (<col1> * <col2>) -- e.g.
10 |

```

### 3 partitions

```

01 | CREATE PARTITION FUNCTION <pfname> (<input param type>)
02 | AS RANGE <LEFT | RIGHT> FOR VALUES(<boundary vals>)
03 | -- LEFT | RIGHT is optional
04 | -- boundary vals are optional
05 |
06 | CREATE PARTITION SCHEME <psname>
07 | AS PARTITION <pfname> TO (<filegroups>)
08 |

```

### 4 geography and geometry types

<https://www.sqlshack.com/spatial-data-types-in-sql-server/>