

SQL Stored Procedure:

A stored procedure is an SQL statement which can be saved for use later on in future code as much as possible. By this logic, if one has an SQL query that may be needed later, it can be saved as a stored procedure then once the user needs the query again they can just call the stored procedure name instead of rewriting the query.

Pros of Stored Procedure:

1. Can take one or multiple parameters.
2. It can reduce network traffic.
3. It is precompiled
4. It is reusable
5. It has high security

Cons of Stored Procedure:

1. Testing
2. It is difficult to debug.
3. It requires an expert developer because it can be difficult to write the code
4. It is database dependent.
5. It can be costly(expensive)

SQL View:

A view is a virtual table that is based on the result-set of an SQL statement. Views usually contain rows and columns akin to a real table. The fields contained in a view come from one or more tables. SQL statements and functions can be added to a view and present the data as if it was coming from a single table. Views are created with the "CREATE VIEW" statement.

A materialized view is a database object that contains the results of a query.

Pros of Views:

1. Views do not store data in physical locations.
2. A view can be used to hide some columns in a table.
3. Views can provide access restrictions because data insertion, update and delete are not possible within a view.

Cons of Views:

1. If a view is utilized for a large table it can take up much memory.
2. Since a view is created when a query requesting data from view is triggered, it can be slow at times.
3. When a table is dropped, the associated view becomes irrelevant.