

Tahmina Ringer

February 20, 2024

IT FDN 130 A Wi 24

Notes Assignment 06

[GitHub Link](#)

Views, Functions, and Stored Procedures

Intro

In this paper, I will briefly overview the purpose, differences, and similarities between Views, Functions, and Stored Procedures.

Views vs Functions vs Stored Procedures

Views –

Views are virtual tables that combine data from multiple tables and structure it intuitively for ease of usability. A view also works as a security mechanism by restricting users from accessing all data within the tables and solely providing the curated data. Data in a view can take longer to access because you must query the database first to retrieve the data and can be compounded by the number of tables you need to query.

Functions –

Functions run concurrently in memory and must return a value. The data Functions receive as parameters isn't modifiable and functions must have at least one parameter. By using functions, you can shorten the length of your source program, easily find, and troubleshoot the erroring function, facilitate top-down programming where high-level logic is solved first, and create code modularity.

Stored Procedures –

Stored Procedures are a set of actions that run as a unit and are performed repeatedly like updating, deleting, inserting, and selecting data. In other words, they are created once but can be run indefinitely, supporting faster execution. Stored Procedures don't take any parameters, can return results if a return statement is included, and can modify database objects. Stored Procedures join SQL queries. You can use try-catch blocks to handle exceptions with procedures but cannot do this with functions.

Disadvantages to using stored procedures are they are challenging to test and debug, they don't have a stored history, and they are hard to determine which parts of the system are used and which are not.

Summary

In summary, Views, Stored procedures, and functions are database objects that contain SQL statements to execute queries. Views can represent a subset of simplified data, increase security, speed up data analysis, and help customize views of data structures. Functions solve high-level logic first and must return a value, their parameters are not modifiable, and they are easy to troubleshoot errors. Stored Procedures are a set of actions that run as a unit repeatedly and join SQL queries.