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Assignment 06

<https://github.com/EChoi26/DBFoundations>

### SQL View, Function, and Stored Procedure: Similarities and Differences

SQL statements can be saved within the database as a SQL View, Function, or Stored Procedure. While they share many similarities in function and purpose, they also possess distinct differences that distinguish each one.

A SQL View is a SQL statement associated with a name and stored in the database. It is a predefined query that presents a composition of a table. A view can contain all rows or selected rows from a table and is created from one or more tables based on the SQL query written for it (TutorialsPoint, n.d.).

SQL Views serve three potential purposes. First, they can be used for structuring data, allowing users to organize it in a natural way. They also help restrict access by limiting what users can see, enhancing data security. Lastly, SQL Views can summarize data from various tables, making it easier to generate reports (TutorialsPoint, n.d.).

A View, Function, and Stored Procedure share similarities in that they are stored within the database and can be reused. However, as outlined above, a View presents a table based on a predefined query. On the other hand, unlike a View, a Function is a block of code that performs various operations and can utilize parameters to return a specific value. As for Stored Procedures, they are not restricted to SELECT statements and can accept parameters. The stark difference between Stored Procedures and Functions is that the former can modify the database with operations such as INSERT, UPDATE, and DELETE (Root, n.d.).

In summary, SQL statements can be stored in a database as a SQL View, Function, or Stored Procedure, each serving different purposes. A View is a predefined query that presents a composition of a table, and it can structure data, limit access, and summarize information for easier reporting. While Views, Functions, and Stored Procedures share similarities in being stored and reusable, Functions perform operations and return values based on parameters, while Stored Procedures can modify the database with commands like INSERT, UPDATE, and DELETE (TutorialsPoint, n.d.; Root, n.d.).