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Foundations of Database & SQL Programming

Assignment 6

SQL Views

# Introduction

This paper will discuss the uses of Views in SQL. How Views, Functions, and Stored Procedures differ will also be covered.

# Views

Views are named SELECT statements stored in a SQL database. One use for Views is to make complex SELECT statements simpler to reuse. They also allow less-experienced SQL users to use a database without many hours of training.

A Base View returns all of the fields and records in a table. When access to a table is restricted, Base Views still allow users to see and use the data in the restricted table with SELECT statements. Schema Binding a View prevents the corresponding table from being altered in a way that makes the View unusable.

# Views, Functions, and Stored Procedures

Functions are named sets of SQL code that return a database object. When a Function is defined, the type of object it returns must be specified. Functions can return scalar objects or tables. Functions can also take parameters that are specified by users when the function is invoked. A View must be called with a WHERE clause to further filter records, but a Function can pass a parameter to a WHERE clause in its definition to filter results based on the provided parameter. When a Function is created, it must be specified as a database object with the prefix “dbo.” Like Views, calling a Function requires a SELECT statement.

Stored Procedures are another type of named set of SQL statements. They can have multiple SQL statements in their definition, and they are not limited to SELECT statements as Views are. Another way Stored Procedures differ from Views and Functions, is that they cannot be called with a SELECT statement. Instead, Stored Procedures use the EXECUTE statement.

# Conclusion

This paper explained what a View in SQL can be used for and how Functions and Stored Procedures differ from Views.