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Course: Foundations of Database & SQL Programming

Assignment06

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

Views, Functions, & Stored Procedure

Introduction

This document will explore Views and the differences and similarities between Views, Functions, and Stored Procedures.

When to Use

Views are a great way to quickly retrieve table data that cannot be edited. They allow you to display specific information while restricting access to sensitive data. For example, an employee list may contain sensitive information. With a view, you can set different access levels for various departments. For instance, you could allow most departments to only see an employee's name, department, and phone extension, while granting HR access to sensitive information, such as SSN, home address, and salary.

Differences and Similarities

In Microsoft SQL Server, you can use a View, Function, or Stored Procedure to present data. A View is the most basic option—it retrieves and presents data from one or more tables in a specific format. A Function can return either a single value or a table, and can be used in queries just like a table. A Stored Procedure is a collection of SQL statements that can perform a series of actions, such as queries, updates, or deletes.

While both Views and Functions are limited to SELECT statements, a Stored Procedure can execute any type of SQL statement. Therefore, a Stored Procedure could only act as a View if it contains a SELECT statement within it.

Summary

In summary, we explored the SQL View clause and the differences and similarities between Views, Functions, and Stored Procedures.