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IT Foundations of Databases & SQL Programming

Assignment 6

Views, Functions, and Stored Procedures

# Introduction

In this assignment I will outline the following topics:

* When to use a SQL view
* The differences and similarities between a view, function, and stored procedure

# When should you use a SQL View?

SQL views allow you to save a SELECT statement to extract data from a database. It allows you to simply type the name of the saved view instead of having to type out the entire select statement every time you want to recreate that extract. You should use a SQL view when the SELECT statement is used frequently and/or it is complex.

# What are the differences and similarities between a view, function, and stored procedure?

* Views: views are saved SELECT statements. They are limited in that they do not allow for much flexibility in applying parameters or ordering results (without a workaround).
* Functions: functions are similar to views in that they are saved scripts to return results from a database. Functions differ from views in multiple ways. First, they can either return a table of values or a single value. Additionally, you can apply parameters directly to the function to change the results of the query as it is executed. Lastly, you can use a function to return a single value, also referred to as a scalar function.
* Stored Procedures: stored procedures are similar to both views and functions in that they are a saved set of SQL statements used to quickly return a set of results from a database. A stored procedure differs from a view and function because they are not only used to return values from a database. They can be used with any type of SQL statement, including altering and deleting data.

# Summary

Views, Functions, and Stored Procedures are all useful SQL tools that can reduce the amount of time spent writing SQL statements and allow you to spend more time analyzing data or complete your tasks faster. Each have their own advantages and disadvantages, so knowing their ideal use cases will allow for you to apply the right tool for each situation.