

Name: Nicholas Smith

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Github URL: <https://github.com/tuzik1/DBFoundations/>

Assignment 6 – Views

Introduction

The purpose of this document is to discuss SQL views, functions, and stored procedures.

SQL Views

A view in SQL refers to an abstraction layer, or a representation of underlying data in your database. The purpose of a view is to be able to perform manipulations and analysis on data housed in tables without the risk of accidentally changing the underlying data.

Views can come in two different types – a ‘Base’ view or a ‘Reporting’ view. A base view is designed to mirror the structure and contents of the underlying table in the database, while a reporting view is often a manipulation of the underlying table. Various manipulations can include refined subsets of data or aggregations, used for the purpose of performing analysis and more efficient querying or reporting.

Functions & Stored Functions

Functions and views are similar in that they allow a user to summarize complicated querying logic for reuse without touching underlying data. Functions are different from views in that they allow for the use of variables and parameters. Parameters in a function act similarly to a ‘WHERE’ clause in an otherwise normal view.

A stored procedure is designed to execute a series of statements or functions. It offers some additional flexibility that a view or a single function may not, but all three SQL statements can be used to yield the same or similar outputs.

Summary

In this document we reviewed different types of SQL views and what they are used for. We also covered two other types of SQL statements – functions and stored functions – which offer additional flexibility when writing queries such as the use of variables, parameters, and the use of consecutive statements.