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Assignment 06

# Views

# Introduction

Programing languages like SQL allows us to automate repetitive tasks. Views are a great example of automating a frequently used script. A view is a result set or a named select statement. It is like a virtual table in that it is not part of the physical schema. The results set is built from the data in existing tables. The select statement is saved but not the tables from which the information is pulled. Therefore, views take very little space to store. Views help maintain the integrity of the data and are the preferred method of querying information.

# Simplifying Queries with Views

There are many advantages in using views. It saves time as the query is only written once and then the view can access the results as often as needed. A view only shows the selected columns hiding the complex script including joins from more than one table. Views reduce exposure to the tables to help maintain integrity. Another advantage of views is you can update or insert data into the original table without interrupting the view. There are restrictions to modifications such as it must be just a single table. Views provide a level of security. The user can be denied or granted permission to certain information.

# Views, Functions, and Stored Procedures

Like views, functions and stored procedures are used to automate processes. User defined functions are very similar to views but the main difference is functions can accept parameters. The parameters can change the results of a query. Keep in mind you could change the results by using a view by using a where clause. Functions can perform operations you specify. They can return a single or scalar value. Stored procedures is a way of implementing reusable code. Stored procedures hold complex logic. Unlike views, stored procedures can have update, insert and delete statements.

# Conclusion

Views, functions and stored procedures are all very similar. They all help to limit repeated work, keep things simple, and use less storage. Changes can be made in the underlying tables without interrupting these definitions. Permissions help keep the information secure. More importantly providing an abstract maintains integrity.