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Mar 5th, 2025

IT FDN 130

[Github Link](#)

Assignment 06

Introduction

In this document we will explore using SQL views to organize inventory data and answering theoretical questions about database objects.

1. When to Use a SQL View

A SQL View is useful for simplifying complex queries (e.g., multi-table joins), enforcing security by limiting access to specific columns, or abstracting underlying table structures. Views also enable consistent data formatting, such as combining employee first and last names into a single column, without modifying source tables.

2. Differences and Similarities Between Views, Functions, and Stored Procedures

- **Views** are virtual tables for read-only data retrieval.
- **Functions** return a single value or table and can be embedded in queries (e.g., SELECT dbo.CalculateTax(Price)).
- **Stored Procedures** execute actions (e.g., updating data) and can return multiple results.
- **Similarities**: All encapsulate logic for reusability.
- **Differences**: Views lack parameters and procedural logic, while functions and procedures support input/output operations.

Conclusion

Understanding distinctions between views, functions, and procedures ensures efficient database design, where views serve as static data layers, functions handle calculations, and procedures manage transactional workflows. Together, these objects streamline maintenance and enhance performance in SQL environments.