**Title:** INFO 330 – Module 5: Assignment05 (Questions and Answers)

**Desc:** This file has the answers to the questions in Assignment05

**Name:** Thomas Luk

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**Introduction**

In Module 05, we learn more complex SQL programming. This includes normalization, constraints, views and transactional stored procedures.

**Explain why constraints, views, functions and stored procedures are recommend features of a professional database design.**

Constraints are crucial in maintaining the integrity of the data in the database. This helps the database have consistent and accurate data.

Views are used to view a specific set of columns in a database. This helps database managers quickly view a pre-selected set of data. This also prevents sensitive information from being viewed since the all data in the View is deliberately selected.

Functions can be used to calculate information. Often, long and complicated calculations have to been calculated and functions can make it so that the database manager doesn’t have to repeatedly type those lines of code. These functions can also take in input parameters that can make the calculations more flexible.

Stored procedures are used to save a sequence of SQL statements. For example, if a certain sequence of SQL statements is used often within a query, the statements can be saved into a stored procedure. These stored procedures create an abstraction layer that make code easier to read and make new queries easier to implement.

**Explain how transaction statements are used in a stored procedure.**

Transactions can be implemented by adding BEGIN TRAN at the beginning of the transaction and COMMIT TRAN at the end of the transaction. These transactions can also be named. You can also undo the transaction by ROLLBACK TRAN. You can add a save point using the SAVE TRAN statement, which makes the ROLLBACK statement undo until the save point.

**Conclusion**

Now that we understand how constraints, views, functions and stored procedures are used, we can implement them into our databases. Also, implementing transaction statements can help “undo” actions that are made to the database.