Lulu Patel

July 26, 2021

Module 3 Assignment

Basic SQL Statements

**Introduction**

This paper discusses the four basic SQL statements used to create, read, update, and delete data. It also describes what a transaction is. Finally, it explains how the Identity, @@Identity, and Ident\_Current() work in SQL server.

1. Explain what are the four basic SQL statements used to create, read, update and delete data.
2. Explain what a transaction is and give an example.
3. Explain how the Identity, @@Identity, and Ident\_Current() work in SQL Server.

Basic SQL Statements

Insert allows you to add data to a table. The best way to type an insert statement is with an **explicit list** of columns. Here is a simple example:

Update statements allow you to **change existing data**. Here is a simple example:

Update Contacts

Set LastName = 'Smith'

Where ContactId = 2;

Delete statements allow you to **remove one or more rows**.

Delete

From dbo.Contacts

Where ContactId = 2;

Transaction

"A transaction is a single unit of work. If a transaction is successful, all of the data modifications made during the transaction are committed and become a permanent part of the database. If a transaction encounters errors and must be canceled or rolled back, then all of the data modifications are erased." ([*https://technet.microsoft.com/en-us/library/ms174377(v=sql.110).aspx*](https://technet.microsoft.com/en-us/library/ms174377(v=sql.110).aspx), 2017)

Consider a table like this one:

Create Table TempDB.dbo.Contacts

(ContactID int Identity, FirstName varchar(50),LastName varchar(50), EmailAddress varchar(50))

go

Use TempDB;

Identity

Identity automatically adds an integer number in a column. It can be used to differentiate one row from another.

When you add a new row to a table with an **Identity Option,** you can **see what the new ID is** using this system variable or this function:

Select @@Identity as [Last ID from the **current** connection]

,**Ident\_Current**('Contacts') as [Last ID for **any** connection]

**Conclusion**

The functions described above are good tools for generating summary data. It can turn thousands of rows of data into useful groupings. Understanding how to program SQL queries using various Select options and aggregate functions can expedite data analysis and decision making.