## Concat Statement

When it might be used:

The Concat statement might be used during an insert of a password into a database. While many will encrypt a password in a database. They may also use the Concat statement when updating/creating the password row in the database to “salt” the password in the database. What this results in is if someone with bad intentions were to gain access to the user password table. Using the password directly from the field to try to log in as that user will not work since the password will not match what is expected. If you make your salt random and just make sure the salt is a certain length in the string you can still then compare the user entered password with the password in the database.

For instance,

Password = MyPassword

SaltedPassword = SaltingMyPasswordSaltIsNotANiceEasyValue

Alias in column header:

Salted Value

SQL statement used:

Select 'MyPassword' as UnsaltedPassword, CONCAT('Salting','MyPassword', 'SaltIsNotANiceEasyValue') as SaltedValue;

Result:

A screen shot of a computer

AI-generated content may be incorrect.

## Trim Statement

When it might be used:

This might be used to remove extra spaces and/or values at the beginning or end of a value stored in the database. Depending on the data type, some databases will add spaces to the value so it takes the full space allowed for the column.

Alias in column header:

Trimmed value

SQL statement used:

Select ' Value to Trim ' as unTrimmedValue, Trim('Value to Trim ') as TrimmedValue;

Result:

A black screen with white text

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## Upper Statement

When it might be used:

This might be used when looking at a type column that was allowed to be freely typed in the program. Some users may have capitalized the letters and some may not have. By putting everything to Upper. You can avoid capitalization issues when doing comparisons.

Alias in column header:

UpperMadeValue

SQL statement used:

Select 'vaLuE' as Unclean, Upper('vaLuE') as UpperMadeValue

Result:

A computer screen with white text

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