Check constraints are used to limit and/or dictate the type of value that can be entered into a particular column. In essence they help to ensure data integrity, having check constraints placed on a column ensures that users cannot simply input random pieces of data into a column where it does not belong. The scope of the check constraint depends on where you declare it, if you declare it for a particular column then the scope of the constraint is limited to said column; however, if it is declared on a table, then the constraint can limit the value of certain columns based on the values located in other columns in the row.

Check constraints are good for ensuring data integrity and consistency. By limiting what type of values can be inputted into a particular column, if it is specific enough, can ensure that the values that are entered at least follow a consistent pattern, enough to determine if something has gone amiss. Another way to look at the benefits of check constraints is to realize that they offer a way to enforce rules in a database without the needs of adding additional logic to over complicate things. On the overall they serve to increase productivity by reducing ambiguity and ensuring data integrity and consistency.

Using the Student Database at Marist as an example.

The INT constraint would be good to use in the case of CWID, due to the fact that a student's CWID will ideally only consist of number and/or INT, assuming that these numbers do not go above the INT limit of the database.

UNIQUE would also be a good check constraint to use on CWID because again, ideally, every CWID should be unique to each and every student who attends Marist. The UNIQUE check constraint will serve to ensure that human error does not lead to the creation of duplicate keys.

VARCHAR(5) would most likely be a bad use case of a constraint due to the fact that, while far in the future, it is possible that the number of students exceeds an 5 character long for a unique Alpha account for each student. There should be room left to grow, considering the fact that theoretically it is possible for the school to expand much further.

Also in a case of misusing a check constraint one could attempt to implement a check constraint of a column that has been set to be unique and auto-increment. This could possibly lead to issues in the future when the check constraints limit the possible combinations of unique variables until none exist.