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Lab4 Question 8

Question 8

Tell me about check constraints: What are they? What are they good for? What's the advantage of putting that sort of thing inside the database? Make up some examples of good uses of check constraints and some examples of bad uses of check constraints. Explain the differences in your examples and argue your case.

Check constraints are constraints or limitations which specify a requirement to be met for an entire column in a database table. Check constraints are good for limiting responses to receive more accurate or specific information, for example, if there was an entry asking for a Yes or No response, a check constraint could be implemented to ensure only Yes and No are entered. The advantage of putting a check constraint inside a database is getting true / relevant information for manipulating the data at a future date.

An example of a good check constraint is to check entry values for a birthday to ensure that they are born within the past 200 years so the information can be accurate and not mis-clicked or intentionally false/misleading. Another good check constraint is to check to make sure prices recorded in a POS system database are >=0 so you cannot have something "sell" for negative dollars. If you were to intentionally "sell" for negative dollars (return an item) you could create a new field for returns but there should not ever be a sale on an item that subtracts money entirely. As for the birthday, the difference between this date check constraint and the one below is that this date constraint has no real world application where it would be necessary. No one has lived to 199 years old so there is no need to set a precedent higher than that and the constraint would only help prevent the spread of misinformation.

Some examples of bad check constraints include: setting a max sale amount for a POS system database so that you cannot record a sale past a certain dollar amount, or restricting a date input if it is past the current date on local time. While both of these constraints sound applicable and good in theory, when applied you can run into issues such as a very large catering order from your POS system that cannot record your sale due to the price cap. Even if the intended purpose was to prevent accidental inaccurate information there are real life scenarios that require a lack of restraint. The same goes for restricting a date, while you don't want people to input the incorrect date, if one was planning ahead or possibly in a different time zone they could have a different date than the database does in its local time so again the restraint would harm the entry of accurate data.