Considering Business Rules

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:≡ WHAT'S COVERED

This tutorial explores the importance of considering business rules in databases in two parts:

1. Business Rules
2. Implementing Business Rules

1. Business Rules

We have looked at a few instances of business rules already. Business rules are very important in the database design process as they play a role in defining the expected and necessary relationships in the database, the data types and sizes, and the internal and external constraints of the database. Not all business rules will directly apply to the database design, but it is still a good idea to be aware of them when implementing your design.

A database is only useful to an organization if it reflects the organization's business rules. A **business rule** is a brief, precise description of a procedure or policy in the organization. Business rules are generally defined based on the organization's business operations. They should be defined in writing, and if the organization makes any changes to business operations, they must be updated in the business rules for the database as well, to keep the data accurate and relevant.

🗎 TERM TO KNOW

Business Rule
    A brief, precise description of a procedure or policy in the organization managing the database.

2. Implementing Business Rules

Business rules can be used to define the entities, attributes, relationships, and constraints within the database. It is very important that the business rules are easy to understand, consistent across all users of the business, and written from the viewpoint of all users. This way, the business rules can be used as a communication tool between all of the users and the database designer. Having a standardized view of the organization's data helps create consistency.

If we only get business rules from a single source, we may have situations where they do not reflect the view of everyone in the organization. A great starting point in finding the business rules is to look at some of the written documentation of the company's procedures, standards, and manuals. Be aware that some of these documents may not be consistently updated. Another source is to ask management, as well as the end users.

End users are the ones that interact with the business processes on a daily basis and have a strong understanding of how things work.

  ⏸ REFLECT

In your workplace or educational institution, who would be the best sources of information for you if you were designing a database to manage their customer data? Who makes decisions based on that data? Who would be the people collecting and storing the data in the database?

However, there may be certain business processes that are approached differently.

↱ EXAMPLE An employee may be able to update any customer record. However, management may say that only a customer's support representative or their manager can change the customer's data.

Although it is a small distinction, that will change the business rule associated with this criterion. Not all business processes may be defined in the database directly as in this case, but they should be represented by the application software that would make use of the databases.

  ☑ SUMMARY

Business rules will affect the entities, attributes, relationships, and constraints in the database design. Furthermore, **implementing business rules** requires consideration of the needs of all users, from the end users that enter information into the system to the management that make decisions based on the accumulated data.

Source: Authored by Vincent Tran