**Understanding Business Rules**

The importance of understanding the nature of the business is paramount to understanding how best to model that business in a database. Because of this, part of your design process is incorporating business rules. **Business rules** are essentially the processes and flows of whatever is involved in the daily workings of that organization. A good place to start is asking the following questions:

* What does the organization do to operate?
* What limits are placed on how the business performs daily tasks?
* How does the business make its money?

Business rules cover a wide area of subjects, not all directly relating to your database design. However, you must identify those that do impact the design and ensure that they are included. Essentially, business rules cover:

* Any types of organizational policies of any form and at all levels of the organization.
* Any types of calculations or formulas (such as loan amortization calculations for a mortgage lending company).
* Any types of rules and regulations (such as rules applied because of legal requirements, self-imposed restrictions, or industry-standard requirements).

Example Using Business Rules

Business rules will relate directly to the business for which you are design­ing the database. The types of business rules you encounter for a retail sales company will probably be quite different than the rules for a credit card company. In either case, the rules will be a design factor.

Consider a situation where you're designing a database for a company that sells home improvement products. You might have a small number of customers, such as contractors, who are allowed to charge their purchases and pay later. When someone tries to charge an order, the person making the sale must determine the following:

* Does the customer have an established account?
* Does the customer have credit available?
* Can the customer charge these types of items?
* Does the customer get the same discount on the order when charging?

Each of these would result in business rules. You would have a rule that you can make charge sales only if the customer has an account and is not over the credit balance. Any other attempts to charge an order would be blocked. Also, you must have a way to keep track of the customer's current balance and credit limit. If the customer can charge only certain items, there would have to be some way of identifying these items in the database and associating them with customers as appropriate. If the customer normally gets a discount, but the amount changes when the order is charged, the change would need to apply automatically. Discount amounts would have to be stored somewhere in the database and associated with the customer.

(extracted from Introduction to Database Management, Gillenson, Ponniah, et al; Wiley 2008)