**An Example for the DBMS Beginners**

A MySQL database server contains many databases (or schemas). Each database consists of one or more tables. A table is made up of columns (or fields) and rows (records).

The SQL keywords and commands are NOT case-sensitive. For clarity, they are shown in uppercase. The *names* or *identifiers* (database names, table names, column names, etc.) are case-sensitive in some systems, but not in other systems. Hence, it is best to treat *identifiers* as case-sensitive.

##### **SHOW DATABASES**

You can use SHOW DATABASES to list all the existing databases in the server.

mysql> **SHOW DATABASES;**

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| Database |

+--------------------+

| information\_schema |

| mysql |

| performance\_schema |

| test |

........

The databases "mysql", "information\_schema" and "performance\_schema" are system databases used internally by MySQL. A "test" database is provided during installation for your testing.

Let us begin with a simple example - a product sales database. A product sales database typically consists of many tables, e.g., products, customers, suppliers, orders, payments, employees, among others. Let's call our database "southwind" (inspired from Microsoft's Northwind Trader sample database). We shall begin with the first table called "products" with the following columns (having data types as indicated) and rows:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Database:southwind Table: products** | | | | | | | |
| **productID INT** | **productCode CHAR(3)** | | **name VARCHAR(30)** | | **quantity INT** | | **price DECIMAL(10,2)** | | |
| 1001 | | PEN | Pen Red | 5000 | | 1.23 | | |
| 1002 | | PEN | Pen Blue | 8000 | | 1.25 | | |
| 1003 | | PEN | Pen Black | 2000 | | 1.25 | | |
| 1004 | | PEC | Pencil 2B | 10000 | | 0.48 | | |
| 1005 | | PEC | Pencil 2H | 8000 | | 0.49 | | |