



What is a Database

Purpose: All Users – Learn what a database is, how it is used and learn the common terms used when using databases.

WHAT IS A DATABASE?

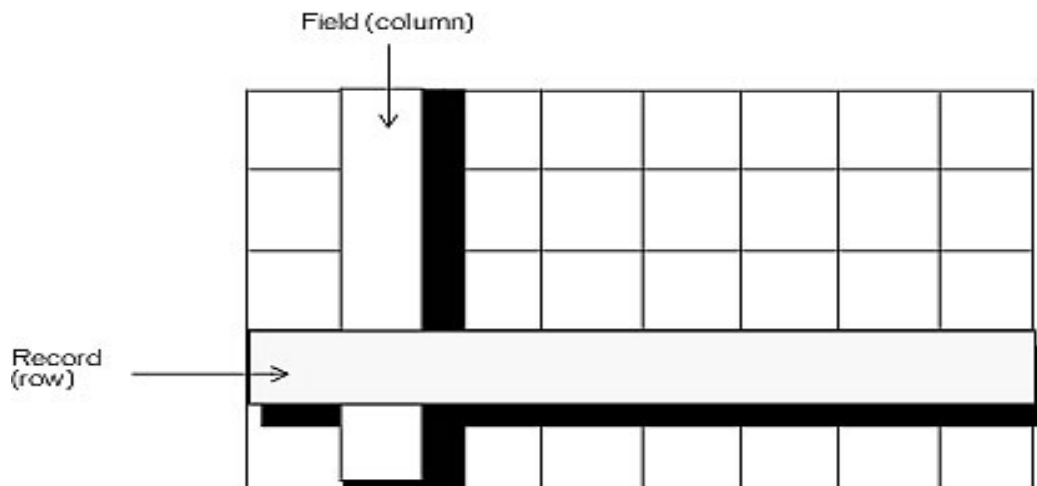
A **database** is a collection of objects that allow you to store data, organize it and retrieve it in any way you want. The simplest form of database consists of a single table of information about a particular topic. If you visualize the phone book as a table consisting of rows and columns, each row represents one phone subscriber's *record*. Each column represents a *field*, which contains the same type of information for each subscriber.

You use databases to manage information. Information, such as product name, cost, and on-hand inventory, is stored in a database. In the database we are here to learn about the information is student information.

Within the database, you organize the data into storage containers called **tables**.

Each database table is given a unique name. Without a unique name the **DBMS** (DataBase Management System) would get very confused.

Tables are made up of columns and rows. Columns represent individual **fields** in a table. Rows represent **records** of data in a table. You can think of database tables as grids, as in the following example:



Each field in the table contains one piece of information. In an Student table, for example, one column contains the student name, another contains the student phone number, and the address, city, state, zip, and salary are all stored in their own columns. Each record represents one set of related information. For example, a student table might store information about one student per row. The number of rows in a table represents the total number of table records.



If the mention of programming languages makes you feel like you're getting out of your depth, don't worry! Most of the database programs you're likely to encounter can be used at a variety of levels.

If you're a beginner, you'll find built-in templates, sample databases, 'wizards' and 'experts' that will do much of the hard work for you. If you find the built-in databases don't quite work for you, it's easy to modify an existing database so it fits your needs, and it's not at all difficult to learn to create your own simple database structure from scratch.

In PowerSchool, Grant Wood will setup and manage the modification and customization of the database. However, you will use some database knowledge in your everyday use of PowerSchool.