

# Databases and the World Wide Web

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## **Introduction**

This document is one in a series of "Technical White Papers" that attempts to interpret and explain in non-technical language the workings of computers on the Internet. The topic of this document is Databases, which is an enhancement to website functionality. Other documents in the series are mentioned and referenced, and further reading to support the concepts introduced here may be necessary.

## **What is a Database?**

A Database is a sophisticated method of storing data. Storing data can take many forms, and the document that you are reading is one method of doing just that. The document before you is a 'flat file.' This means that it is built of text, perhaps 'live' text, if you're reading from the internet. If you're reading this document as a .pdf file, or a printed piece of paper, it's an image. If it's a word document, it's live text, but still a 'flat' file.

The sophistication of storing data in a database comes from how the data can be related to itself or to other data. This is what gives the data more depth, and moves it beyond the scope of a 'flat file.' The more data, or the more data about a subject, that's stored in a database, the deeper one can relate the data, hence a 'relational database.'

## **Why are Databases useful?**

Databases are useful for the means and depth of the data that can be extracted from them. In other words, if the data can be pulled from the database in several different forms, it becomes more useful. Data that can be related to itself in several fashions can show relationships that would not otherwise be apparent.

Lets consider an example. [xyz.com](http://xyz.com) sells widgets on the web. They've been doing this for about 5 years. They've kept meticulous records of their production and sales, and they've reviewed the data consistently. They've noticed a spike in sales (naturally so) around Christmas. Based upon the consistent curve, they've noticed a 5% increase of sales just after Thanksgiving in their Texas market. Based upon this data, [xyz.com](http://xyz.com) is going to increase production well before Thanksgiving, apply some extra marketing in that area, and hope to increase their sales in excess of 5% this year.

Had their figures not been available in database form, nor capable of being viewed with the methods available to a database system, [xyz.com](#) would not be able to project as accurately as necessary to show the increase desired.

E-commerce is barely possible or extremely limited without the use of a database. Databases are what make possible the dynamic data that creates user profiles, logins and passwords, bank transactions, and much more.

### ***How can I implement a Database on my website?***

In order to utilize a database on one's website, the application must be installed on the web server. This is usually done by a competent System Administrator. It's possible that the application is already installed. Asking the appropriate questions before committing to a web hosting plan can save hassles in the long run. If the commitment has already been undertaken, a phone call to the hosting company can answer the question.

The web server and the database must be able to communicate with each other. This is accomplished with some form of scripting language. Usually, when the web server is formatted and the software is installed, these balances are considered. One must look for and secure a web hosting agreement that provides compatible software applications for the intended purposes, as well as to the programmers who will be establishing the desired systems.

The PHP scripting language and a MySQL database application are a hard combination to beat. It's all open source, so there are several of the world's best programmers improving it around the clock. It's abundantly available, and it's commonly supported. This is exactly the arrangement offered by [webpointmorpheus](#), and it's solid, stable, and consistent.

### ***Conclusion***

This article has covered (very briefly and non-technically) the bare essentials of a web database. A web server is only one increment of a functioning web site, and the use of a database on one's website can bring enhancements that would not be remotely possible without the application. When combined with a compatible scripting language, dynamic pages and custom tailored pages become available where previously static html pages were only possible.

## ***Additional***

The website process, way the web works, Search Engines, and other web & internet concepts are often very confusing, especially for the typical non-technical person. [webpointmorpheus](#) has assembled several documents hoping to simplify these topics. This series of documents are the result of a consistent set of questions posed by current, past, and potential webpointmorpheus clientele. The documents are listed below, and are available online at [www.webpointmorpheus.com](http://www.webpointmorpheus.com).

Documents available from [webpointmorpheus](#):

- Why Would I Want a Website?
- What's Involved Launching a Website?
- Block view of the Web Site Design Process
- Block View of Typical Web Page Request on the Web
- What is Web Hosting?
- DNS Stands for Domain Name System
- Web & Internet Security Considerations
- E-commerce 101: Is it for me?
- What are Search Engines?
- webpointmorpheus Search Engine Services
- What is PHP Server Side Scripting?
- Databases and the World Wide Web
- Viruses, Worms, & Trojan Horses