

# 11 Database Management

## 1. Database softwares

1. MS Access
2. Libreoffice base/ Openoffice base
3. MySQL (Most popular web app)

## 2. Database and Web Development

For a website, texts saved in database. multimedia files saved in external file folders.

In a website, database is dynamic. Fields are fixed, but data can be input by users based on php language.

Building a Database based Website requires the following applications (Open source):

1. A web server application: Apache
2. Web language: PHP
3. Database software: MySQL
4. CMS (Content Manage System), such as Wordpress, Drupal, Joomla

Linux is best OS for the web server. Often, people use LAMP for web development and web host.

LAMP = Linux + Apache + PhP + MySQL

Linux OS,  
the Apache HTTP Server,  
the MySQL relational database management system, and the PHP programming language.

## Three steps to set up a website:

1. Apply a domain name such as: <http://mytemple.org.th>

if your temple located in other country, you can change th. Or just use org domain.

2. server or host:

the easiest and cheapest way is to buy a share-host server in a web host company: such as <http://exabytes.com/>

IBC website is hosted by exabytes. For a Buddhist temple or personal website, 14 USD per year is good choice.

3. Install CMS

CMS is a Web Content Management System such as wordpress.org, joomla.org, or drupal.org

Wordpress is good start. Drupal is good for a big website. It requires a better host server.

Or just use ftp to upload html files (just use thml and css).

## Testing and Developing in your website at your Local Computer

The easiest way is to install a package contains all programs, such as: Easy PhP, XAMPP

a. Easy PHP: <http://www.easyphp.org>

b. XAMPP: <http://www.apachefriends.org/>

Apache Friends is a non-profit project to promote the Apache web server. It was founded in the spring of 2002. XAMPP is an easy to install Apache distribution containing MySQL, PHP and Perl.

### What is Php?

PHP was designed to be run within web pages in a web application.

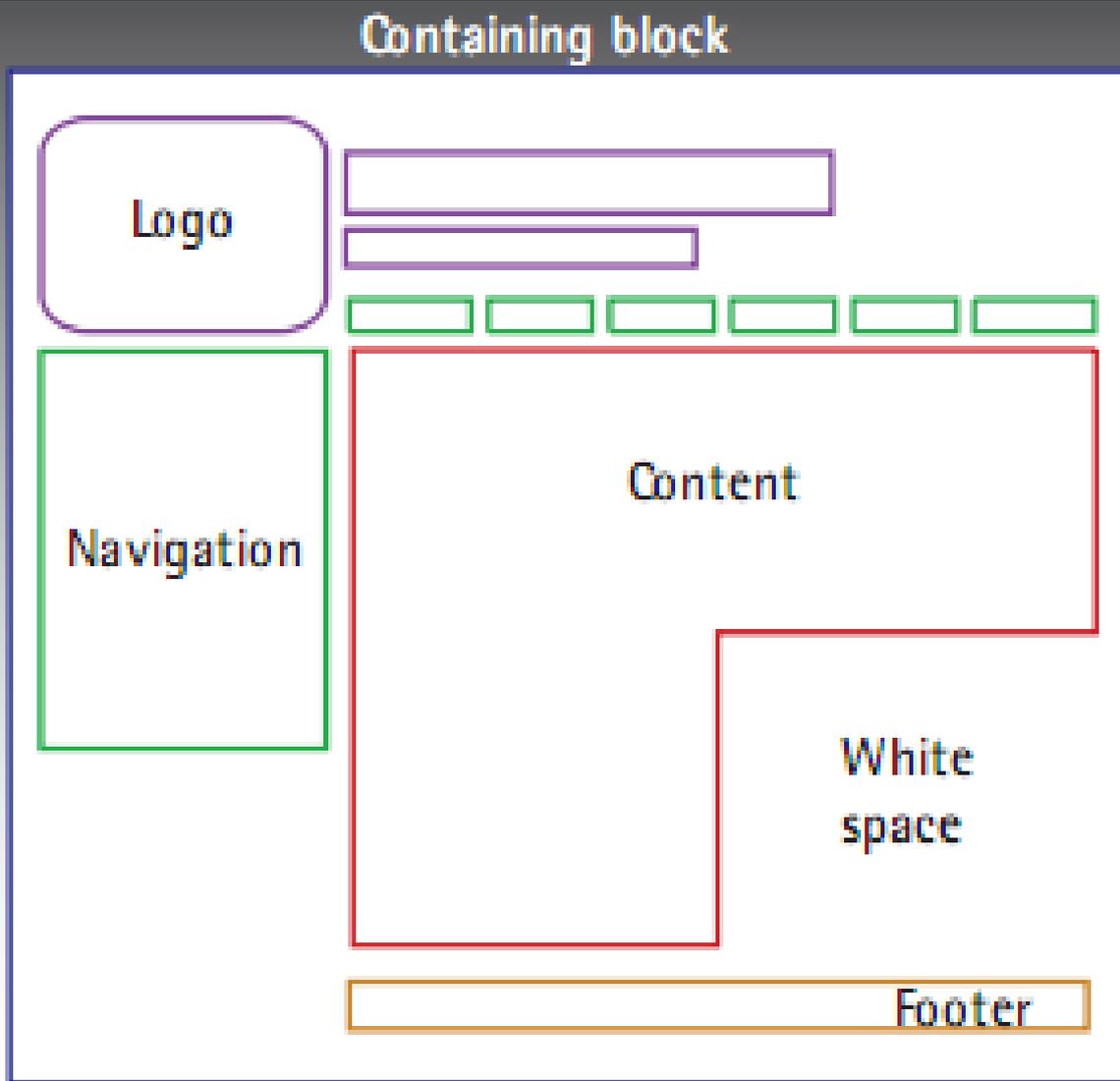
The name PHP originally came from **P**ersonal **H**ome **P**age. Later, it becomes a open source program. The the name changed to PHP: **H**ypertext **P**reprocessor.

The PHP language is now maintained by the PHP Group and released under a special license. It is considered by the Free Software Foundation as free software. The Zend Corporation is a major contributor to the PHP Group and provides commercial support for the programming language. Wordpress, Joomla and Drupal are using php.

## Web Design

### Web Design Process

- What does the organization do?
- Does the organization have an existing logo or brand?
- What is your goal in developing a web site?
- What information do you wish to provide online?
- Who comprises your target audience? Do its members share any common
- demographics, like age, sex, or a physical location?
- Who are your competitors and do they have web sites?



## The four basic principles also apply for website

### 1. Contrast

The idea behind contrast is to **avoid elements on the page that are merely similar**. If the elements (type, color, size, line thickness, shape, space, etc.) are not the same, then make them very different.

**Contrast is often the most important visual attraction** on a page-it's what makes a reader look at the page in the first place.

### 2. Repetition

Repeat visual elements of the design throughout the piece.

You can repeat colors, shapes, textures, spatial relationships, line thicknesses, fonts, sizes, graphic concepts, etc. **This develops the organization and strengthens the unity.**

### 3. Alignment

Nothing should be placed on the page arbitrarily. Every element should have some visual connection with another element on the page. This creates a clean, sophisticated, fresh look.

### 4. proximity

- Items relating to each other should be grouped close together.
- When several items are in close proximity to each other, they become one visual unit rather than several separate units.
- This helps organize information, reduces clutter, and gives the reader a clear structure.

## SEO

To create a facebook page links to your website is the first start.

### Homepage

The homepage is your company's **face to the world**.

The homepage is the **most important page on most websites**, and gets more page views than any other page.

Make the Site's Purpose Clear: Explain Who You Are and What You Do

1. Include a One-Sentence Tagline
2. Write a Window Title with Good Visibility in Search Engines and Bookmark Lists
3. Group all Corporate Information in One Distinct Area  
Help Users Find What They Need
4. Emphasize the Site's Top High-Priority Tasks
5. Include a Search Input Box
6. Easy access Menu items
7. Auto adapt for phones, tablets.
8. Offer Easy Access to Recent Homepage Features
9. Don't Over-Format Critical Content, Such as Navigation Areas
10. Use Meaningful Graphics

Top Ten Mistakes in Web Design

<http://www.nngroup.com/articles/>

## 1. Bad Search

## 2. PDF Files for Online Reading

## 3. Not Changing the Color of Visited Links

## 4. Non-Scannable Text

Use well-documented tricks:

- subheads
- bulleted lists
- **highlighted keywords**
- short paragraphs
- the inverted pyramid
- a simple writing style

## 5. Fixed Font Size

## 6. Page Titles With Low Search Engine Visibility

The page title is contained within the HTML <title> tag and is almost always used as the clickable headline for listings on search engine result pages (SERP). Search engines typically show the first 66 characters or so of the title.

Page titles are also used as the default entry in the Favorites when users bookmark a site.

For your homepage, begin the with the company name, followed by a brief description of the site. Don't start with words like "The" or "Welcome to."

For other pages than the homepage, start the title with a few of the most salient information-carrying words that describe the specifics of what users will find on that page. Since the page title is used as the window title in the browser, it's also used as the label for that window in the taskbar under Windows.

## 7. Anything That Looks Like an Advertisement

- banner blindness
- **animation avoidance**
- **pop-up purges**

## 8. Violating Design Conventions

when things always behave the same, users don't have to worry about what will happen. Instead, they *know* what will happen based on earlier experience.

The more users' expectations prove right, the more they will feel in control of the system and the more they will like it. And the more the system breaks users' expectations, the more they will feel insecure.

**Jakob's Law of the Web User Experience** states that "users spend most of their time on *other* websites."

## 9. Opening New Browser Windows

### 10. Not Answering Users' Questions

The ultimate failure of a website is to fail to provide the information users are looking for.

Since users don't have time to read everything, hidden info might almost as well not be there.

The worst example of not answering users' questions is to **avoid listing the price** of products and services.