Web Programming

YJ – Aug 2015

Course Outline

There're 16 lectures (2.5 hrs each) in this course. We'll mainly focus on web programming using LAMP model.

During the 24 hours tutorials in each week, our tutors will help you go through all the contents in the lecture notes and help you with the assignments

All scheduled lectures are learner-paced which means they could be altered depends on the situation. We help you gain rather than cram!

Course Outline

❖ L1 ~ Web programming intro

❖ L2 ~ HTML5

❖ L3 ~ CSS3

❖ L4 ~ JavaScripts

❖ L5 ~ PHP 1 Basic

❖ L6 ~ PHP 2 OO && Functions

❖ L7 ~ PHP 3 OO && Sessions

❖ L8 ~ PHP 4 Advanced features

❖ L9 ~ Mysql

❖ L10 ~ Mysql 2

❖ L11 ~ XML/JSON

❖ L12 ~ Ajax

❖ L13 ~ Framework: Bootstrap && Laravel

❖ L14 ~ CMS: Wordpress, Joomla, etc.

❖ L15 ~ Final Projects

❖ L16 ~ Final Projects

Content Management System

❖ A content management system (Web Content Management System) is a bundled or stand-alone application to create, deploy, manage and store content on Web pages.

❖ CMS provides website authoring, collaboration, and administration tools designed to allow users with little knowledge of web programming languages or markup languages to create and manage website content with relative ease.

❖ Web content includes text and embedded graphics, photos, video, audio, and code (e.g., for applications) that displays content or interacts with the user.

Content Management System

Content Management System
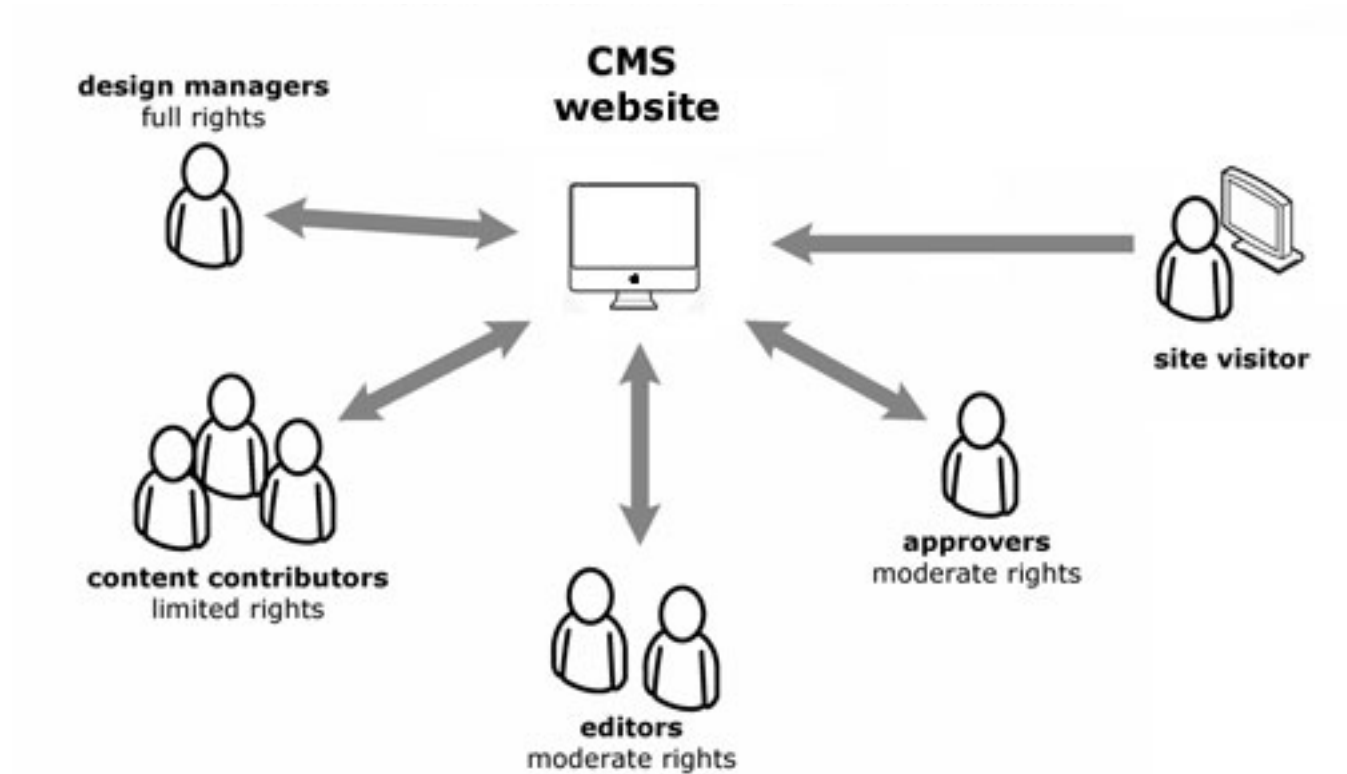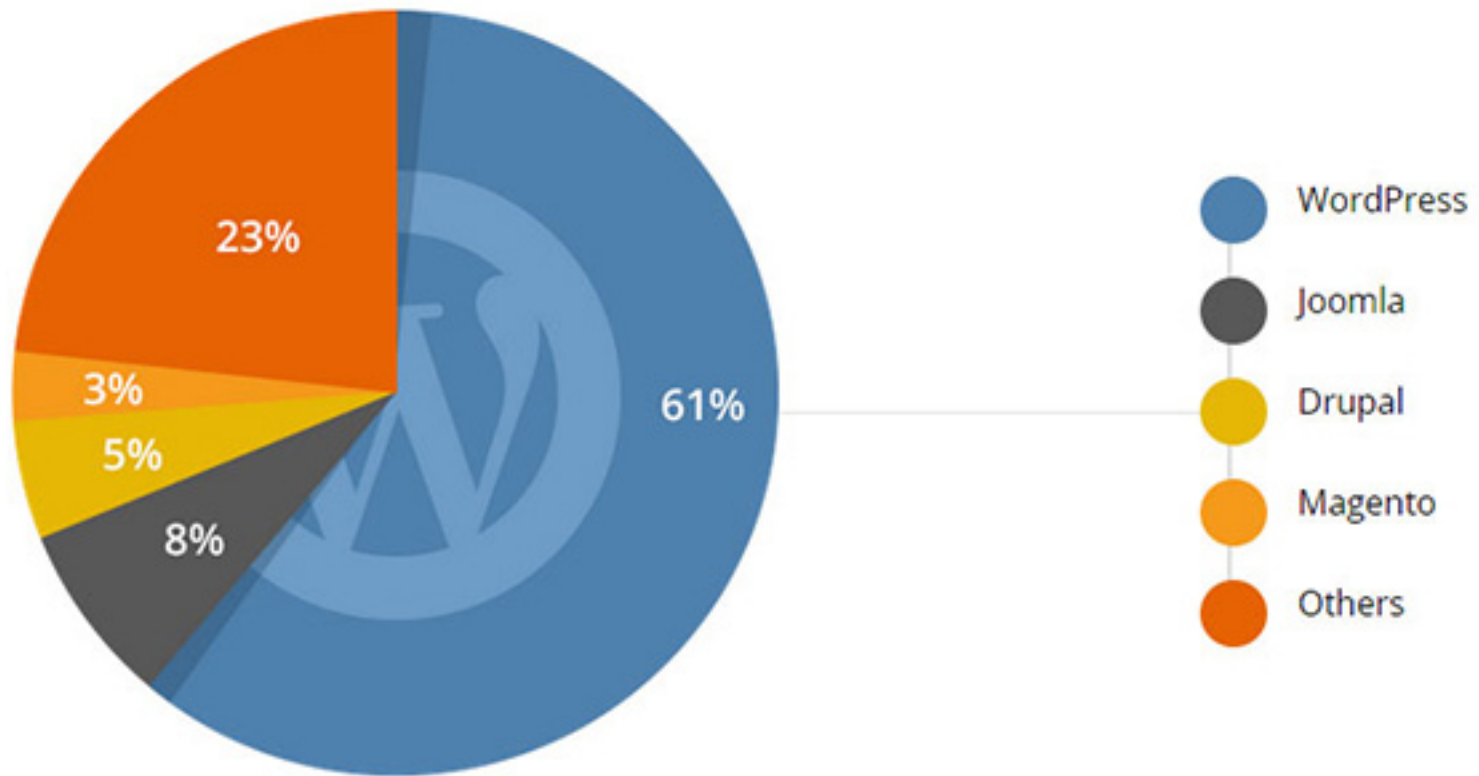
Content Management System
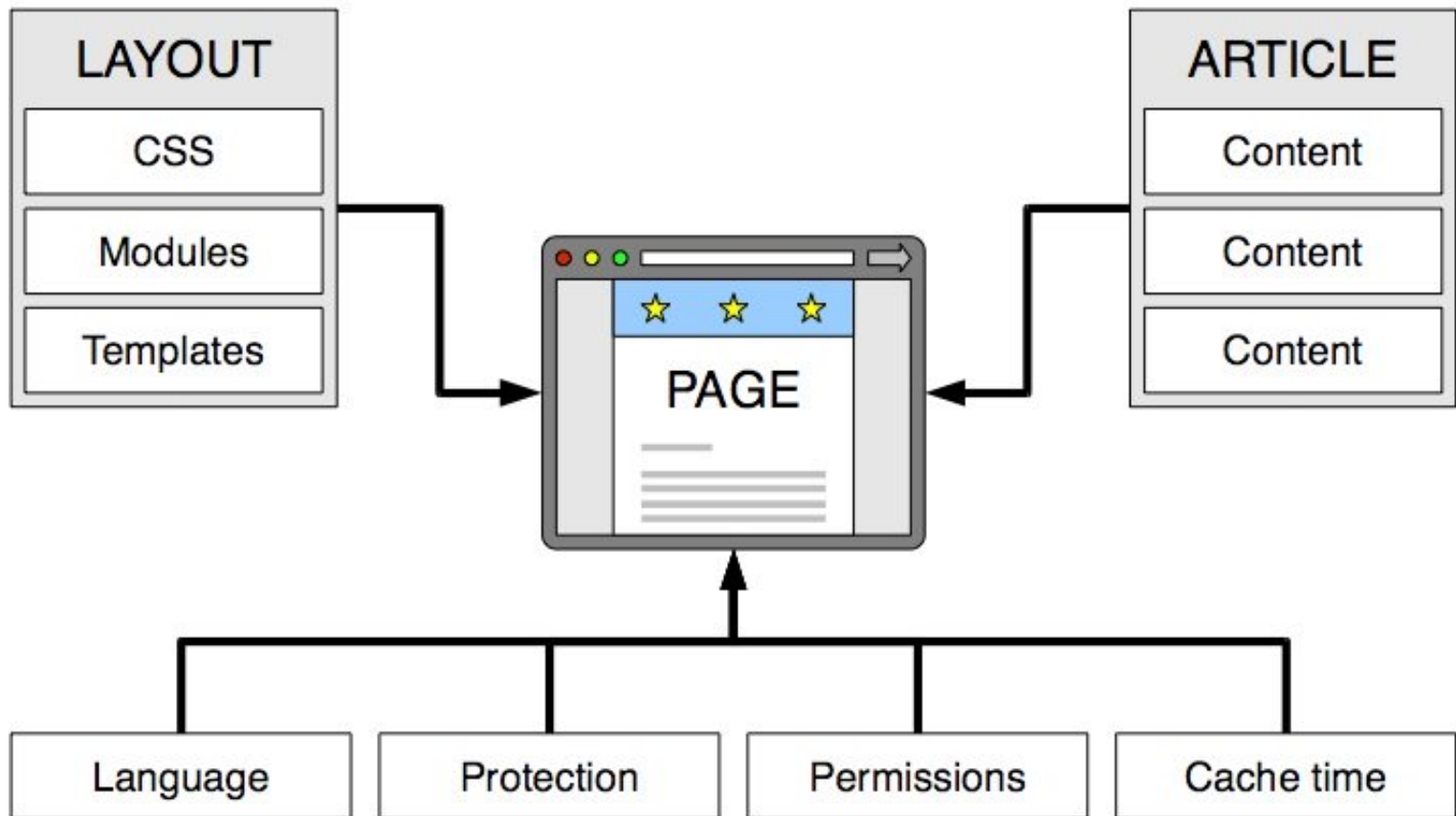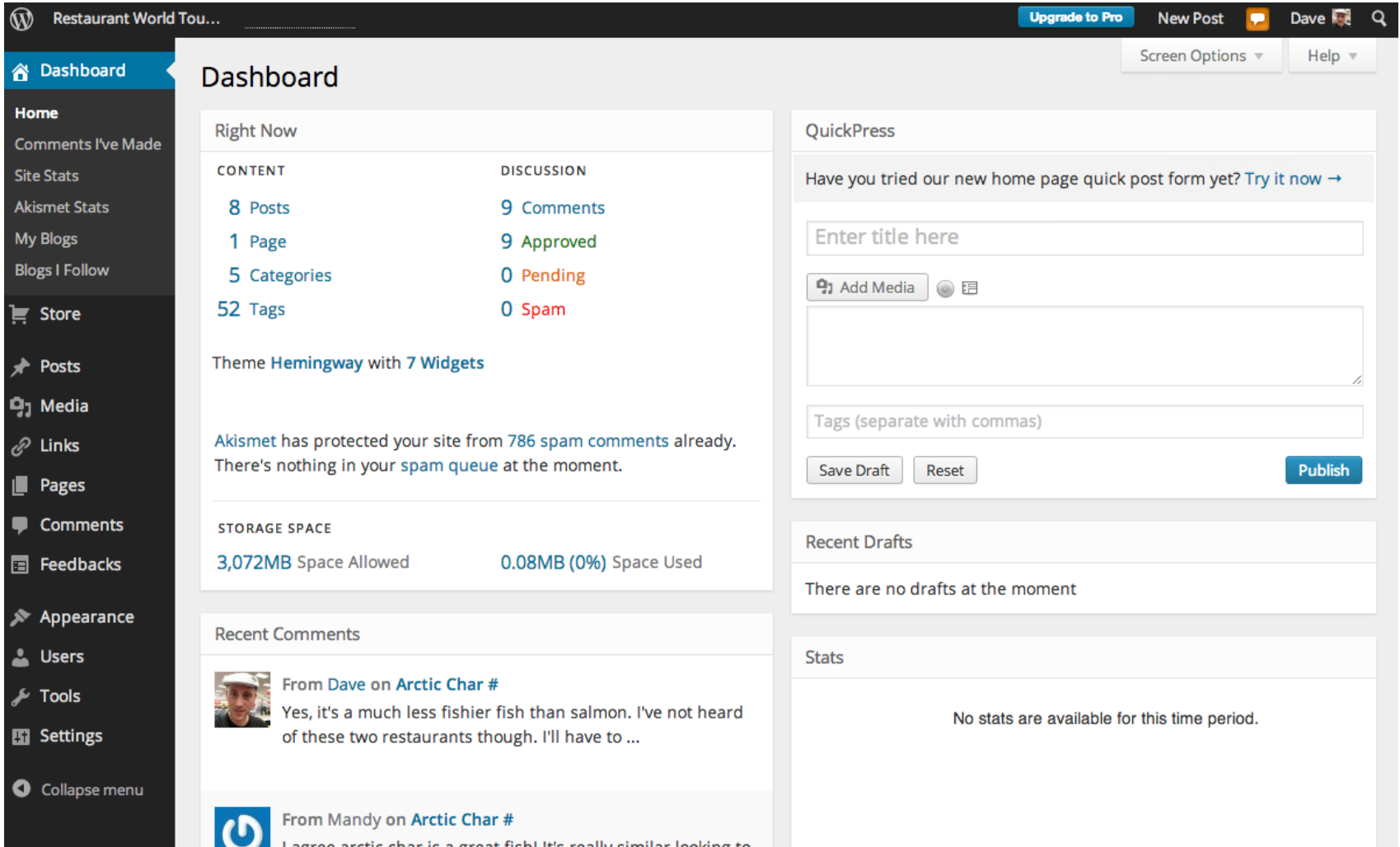
Content Management System

Content Management System

- WordPress — 61%
- Joomla — 8%
- Drupal — 5%
- Magento — 3%
- Others — 23%

WordPress

❖ WordPress is a completely free tool (based on PHP and MySQL) used to create dynamic websites. Originally, WordPress was developed as blogging software. In recent times, since WordPress is so robust everyone from web developers to average computer users have used it to build beautiful websites.

❖ WordPress was used by more than 23.3% of the top 10 million websites as of January 2015. WordPress is the most popular blogging system in use on the Web, at more than 60 million websites.

WordPress

WordPress

wp-content — plugins — stripshow

wp-content — themes — stripshow_sandbox

themes — my_child_theme — images

my_child_theme — style.css

WordPress

❖ **Themes**

> WordPress users may install and switch between themes.

> Themes allow users to change the look and functionality of a WordPress website and they can be installed without altering the content or health of the site.

> Every WordPress website requires at least one theme to be present and every theme should be designed using WordPress standards with structured PHP, valid HTML and CSS.

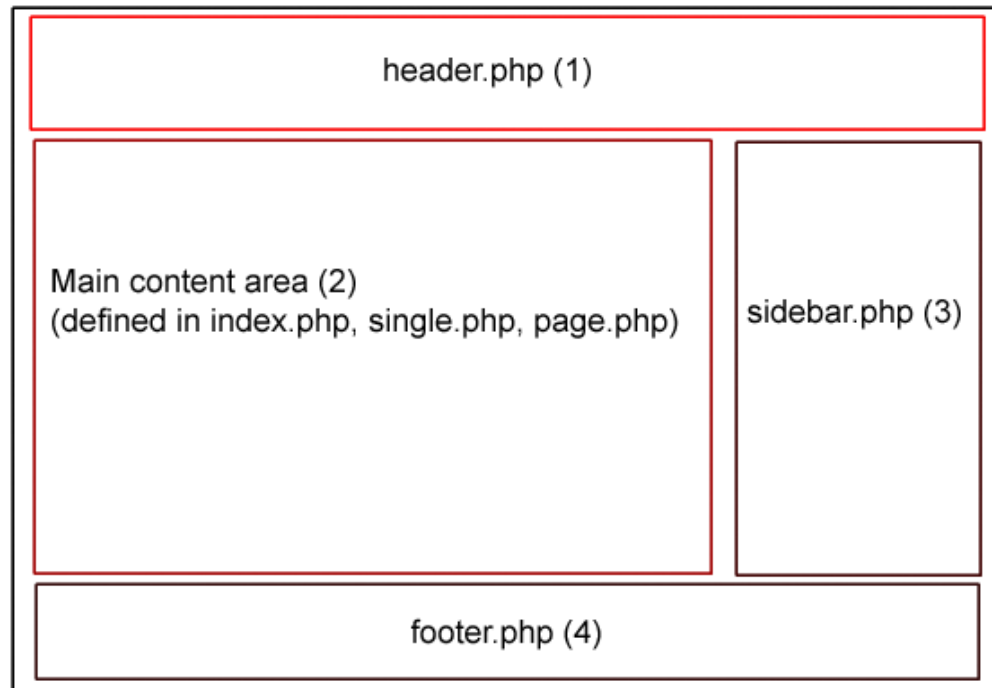# WordPress

❖ **Plugins**

> WordPress's plugin architecture allows users to extend the features and functionality of a website or blog. WordPress has huge amount of plugins, each of which offers custom functions and features enabling users to tailor their sites to their specific needs.

> These customizations range from search engine optimization, to client portals used to display private information to logged in users, to content displaying features, such as the addition of widgets and navigation bars.
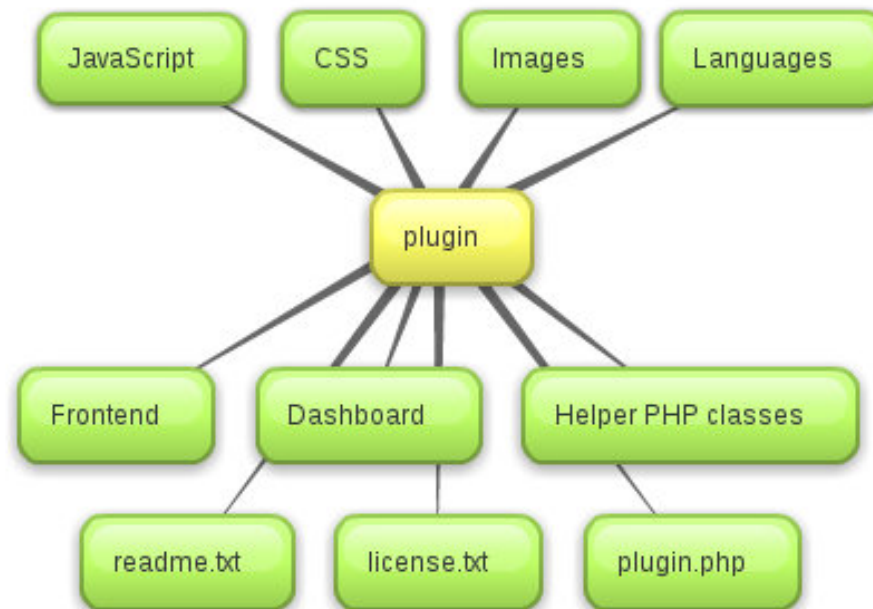
Joomla

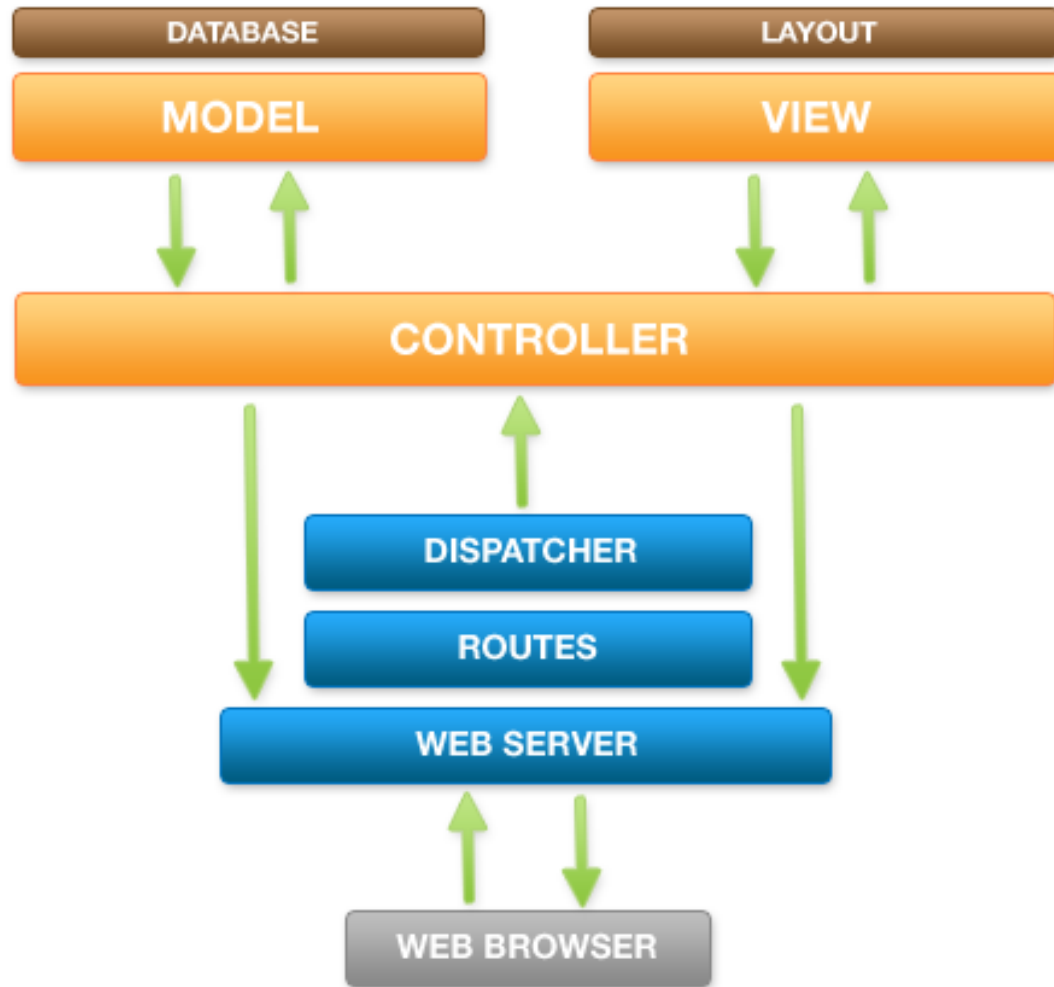❖ Joomla is written in PHP, uses object-oriented programming (OOP) techniques and software design patterns stores data in a MySQL, MS SQL , or PostgreSQL database, and includes features such as page caching, RSS feeds, printable versions of pages, news flashes, blogs, search, and support for language internationalization.
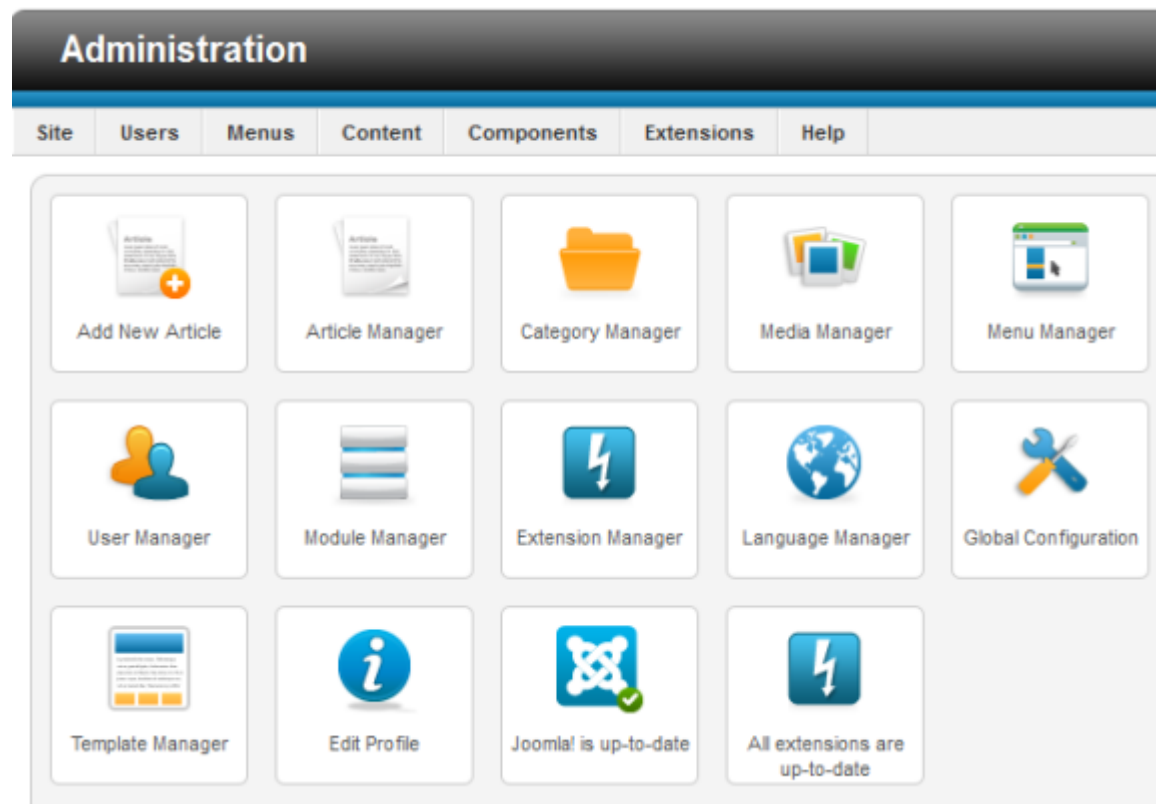
Joomla

Joomla

❖ **Extensions**
1. **Components** are the largest and most complex extensions. Most components have two parts: **a site part** and **an administrator part**. Every time a Joomla page loads, one component is called to render the main page body. Components produce the major portion of a page because a component is driven by a menu item.

2. **Plugins** are advanced extensions and are, in essence, event handlers. In the execution of any part of Joomla, a module or a component, an event may be triggered. When an event is triggered, plugins that are registered to handle that event execute.

   For example, a plugin could be used to block user-submitted articles and filter text.

Joomla

❖ **Extensions**

3. **Templates** describe the main design of a Joomla website. While the CMS manages the website content, templates determine the style or look and feel and layout of a site.

4. **Modules** render pages in Joomla. They are linked to Joomla components to display new content or images. Joomla modules look like boxes, such as the search or login module. However, they don't require html in Joomla to work.

5. **Languages** are very simple extensions that can either be used as a core part or as an extension. Language and font information can also be used for PDF or PSD to Joomla conversions.

Magento

❖ Magento is an open source application that is build upon Zend Framework.

❖ Magento was originally designed to give businesses a platform on which they could provide an online solution for their commercial aspirations while also providing a highly extensive "Back Office" to administer the site from site design to product and order management.

❖ There are two versions of Magento:
  1. Community version
  2. Enterprise edition version

Magento

Multiple Website, Multiple Store Views
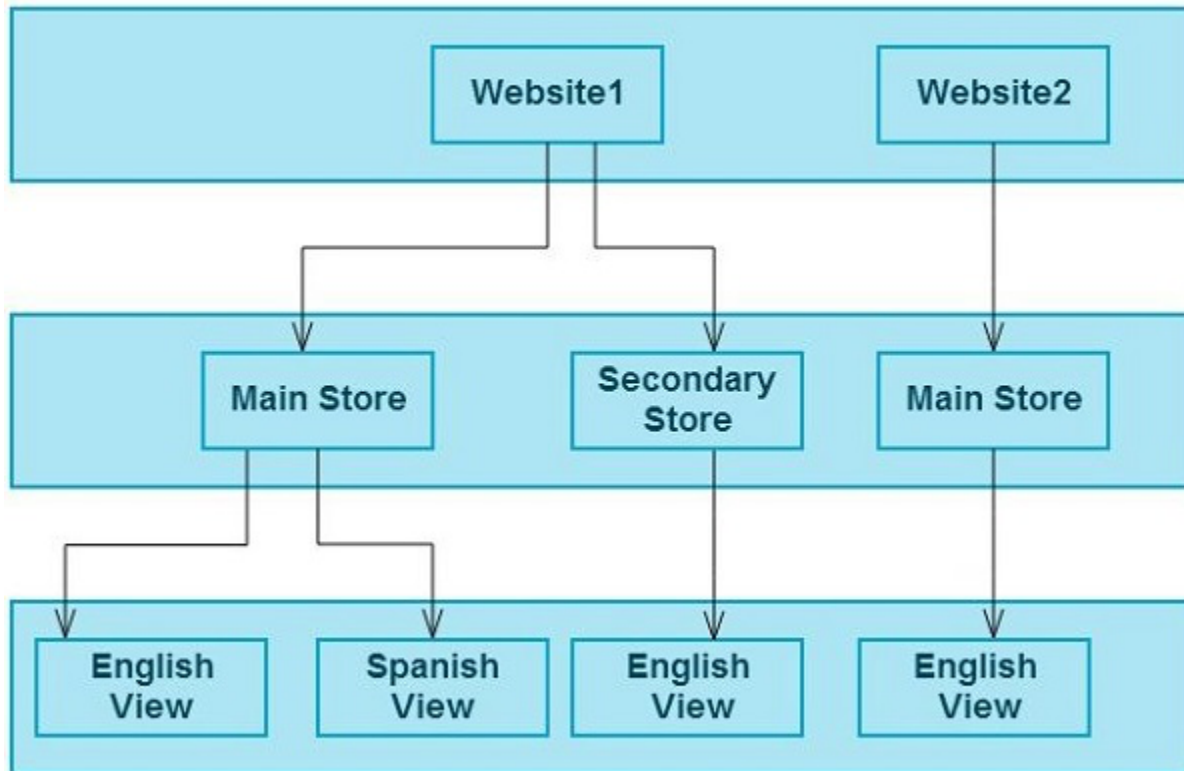
Magento

❖ **Theme**

1. **The Template Directory** contains layout, template.

   The Layout directory contains theXML files which are use to create the basic block structure of themes.

   The Template directory contains all the PHTML (PHP + HTML) files which are use to create the actual HTML of themes. Template files also allows PHP code so that we may create dynamic HTML pages

   The Locale directory contains CSV files which are mainly used for storing multiple languages related strings to support multiple languages to store.

2. **The Skin Directory** contains CSS, JavaScript, and images.

   CSS contains all css files related to that particular theme.

   JS contains all js files related to that particular theme.

   **Images** contains all images related to particular theme.

Magento

Theme Fallback System
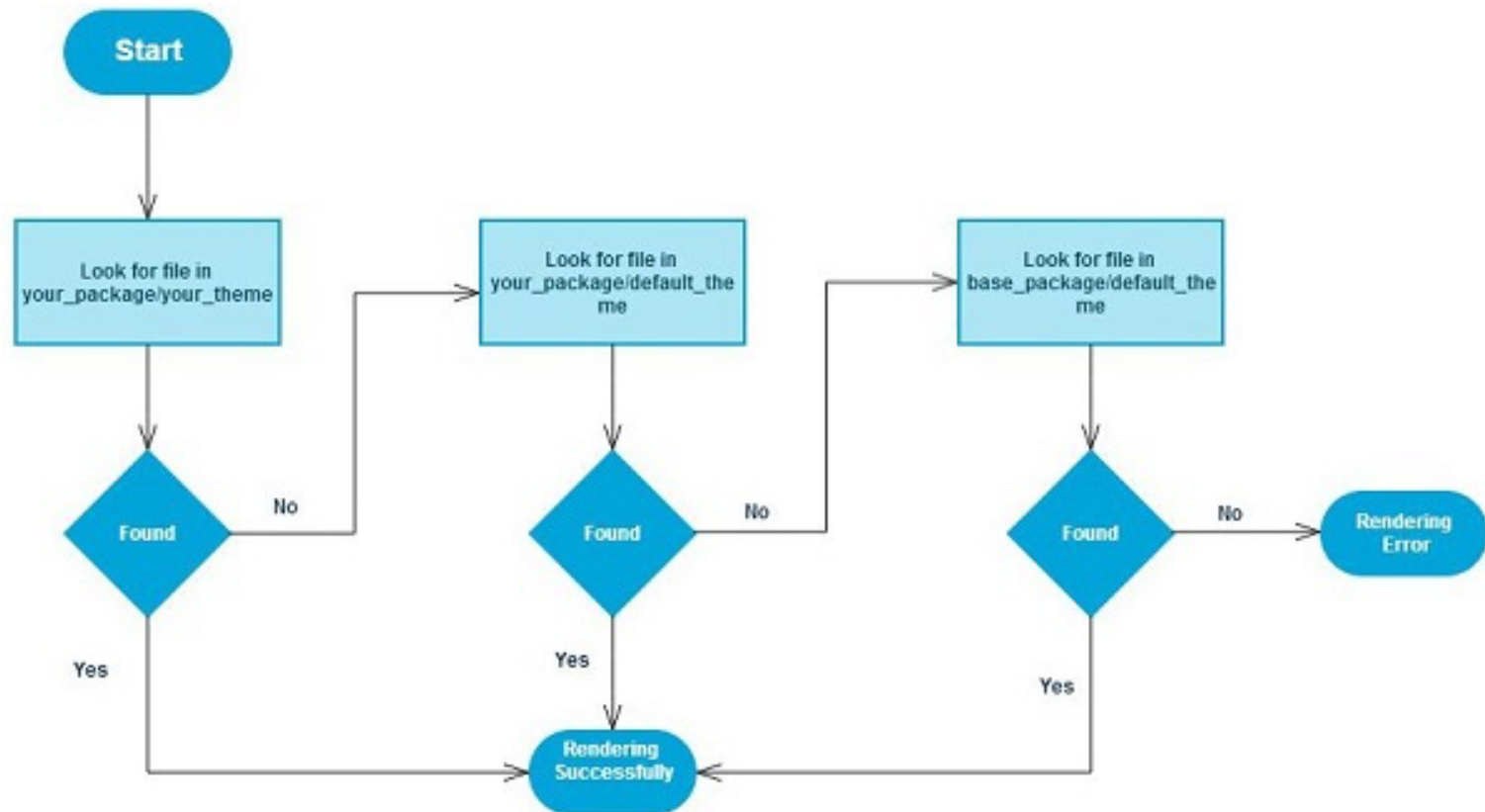
Magento

Layouts are the XML files that map your page with structural blocks and content blocks. Each layout files contains the tags, through which you can control particular blocks.
Each Magento module has separate layout files so you can easily manage the module specific layouts.
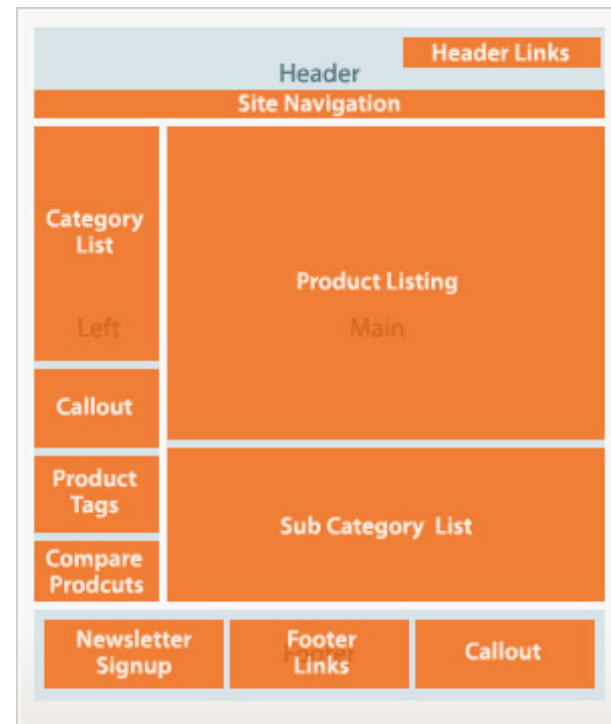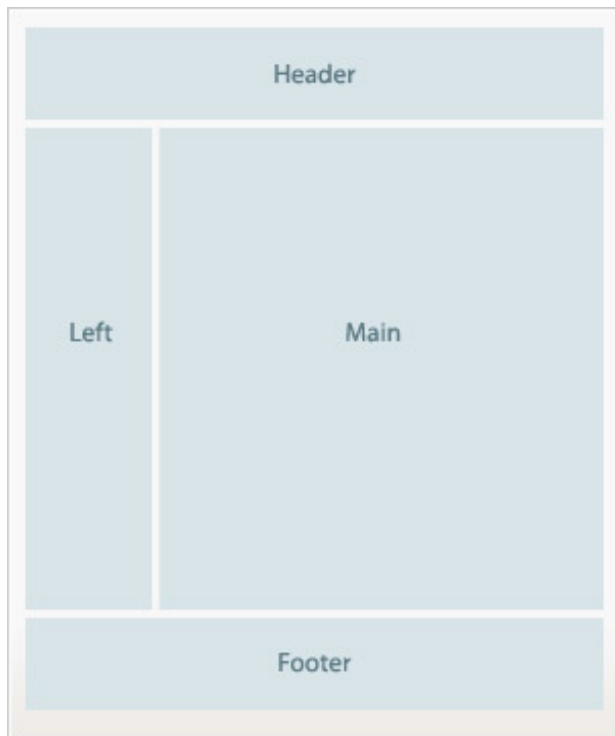
Opencart

❖ OpenCart is a turn-key ready "out of the box" shopping cart solution. You simply install, select your template, add products and you're ready to start accepting orders.

❖ It has order management and multiple payment gateways already built in and we provide lifetime free support and free software updates.

CMS Made Simple

❖ CMS Made Simple aims to provide easy development and customization with themes, add-on modules, dynamic menus, tags and translations. When developing a new feature, the tab opens full of default text.

❖ The developer starts by erasing the bits he doesn't need, and then adding further tags that link to plugins, known here as modules.
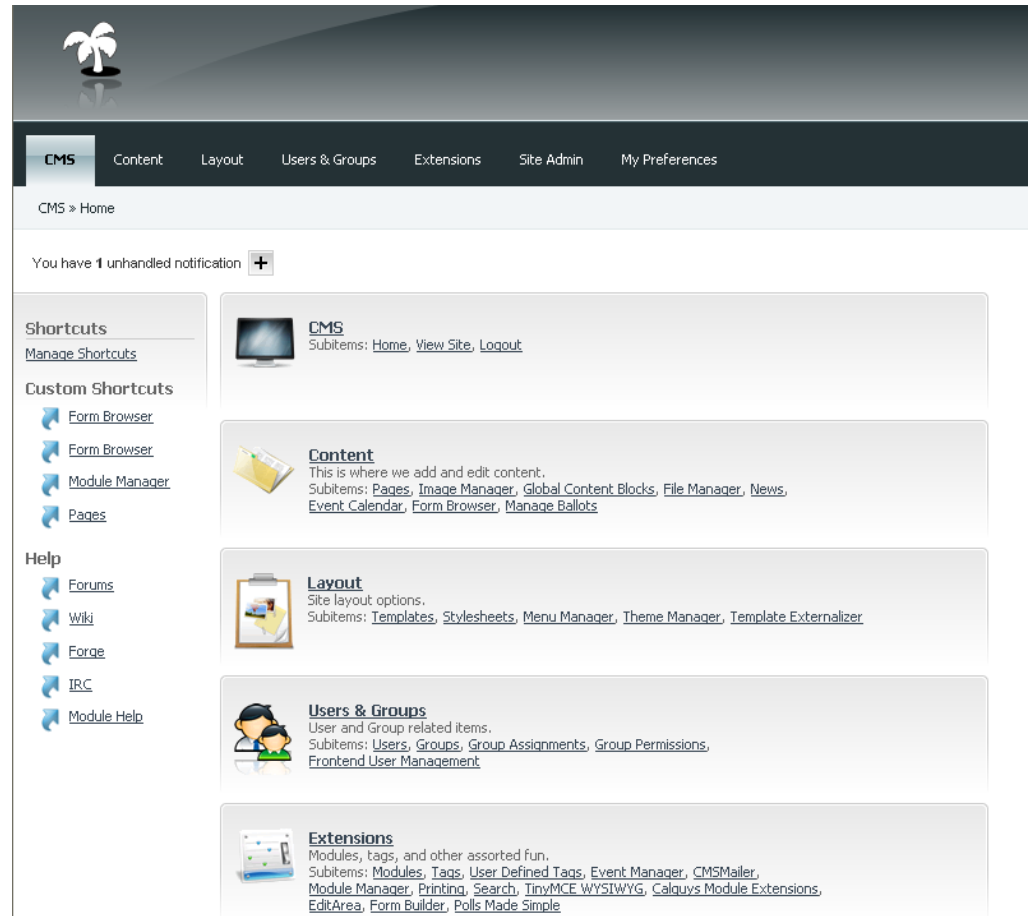
TinyCMS

❖ **Made for web-designers**, the TinyCMS suite is easy to install and easy to extend.

❖ TinyCMS does not use data-bases, it's storage mechanism are simple text files. This makes it very fast and very web hosting resource friendly.

❖ You have an easy to use administrator interface and a single html file that you can edit as you wish to completely change the way your website looks.

❖ TinyCMS is not a platform that supports thousands of pages, not because it can't do it but because it would use to many files and resources to be called "tiny".
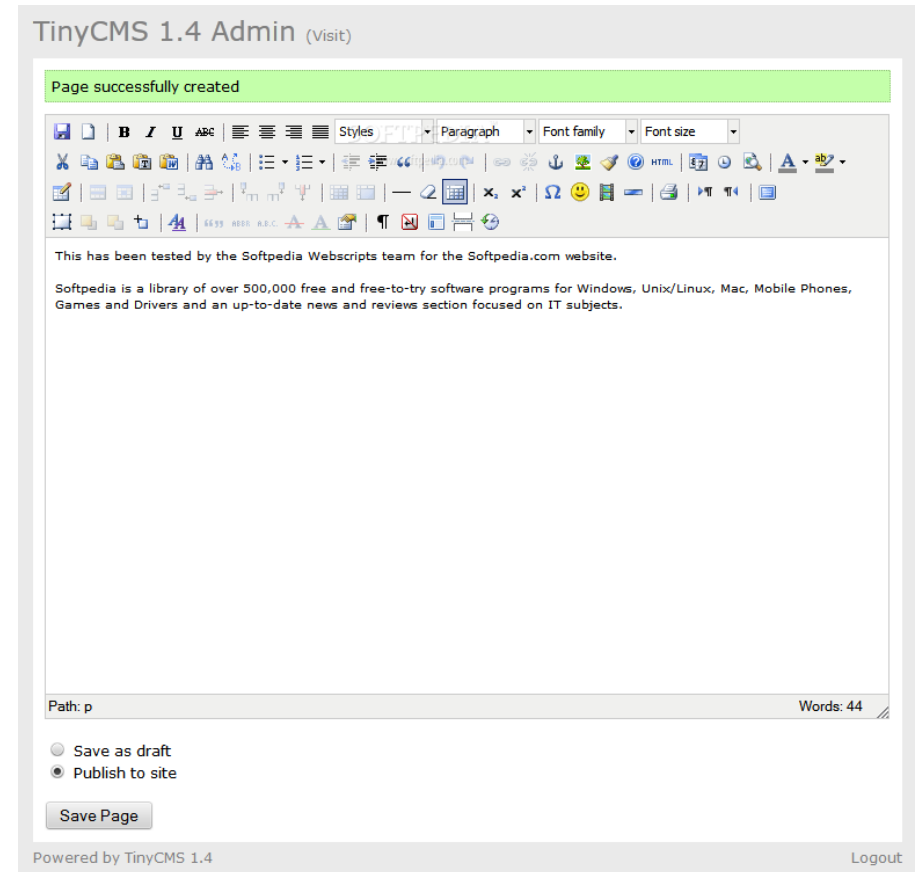
Concrete 5

❖ Most of the work you'll need to do with concrete5 happens right on the pages you want to edit. This "In-Context Editing" is very intuitive.

❖ For more administrative duties (like adding users, customizing themes, getting reporting data, etc) there is a more traditional Dashboard.