

Content Management System using Web Technology

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Abstract: This proposal explores distinctive existing open-source Web Content Management Systems (WCMS) and their highlights. The primary goal of WCMS is to permit non-specialized clients to effectively refresh and deal with a website's content. However, WCMS items accessible on the showcase today have coordinated numerous other complex functionalities, which makes the client interface hard to comprehend and utilize. All WCMS require some measure of preparing on establishment and where to begin. After reconciliation clients need to peruse the manual or take exercises to utilize other accessible propelled highlights. The examination question investigated here is whether to actualize a WCMS [2] from existing choices contrasted and the practicality of structure another one starting with no outside help. This paper examines the contemplations of building up another WCMS, counting the favorable circumstances and weaknesses with respect to an off-the-rack item.

Keywords: CMS, Web Technology, PHP, JS, CSS, HTML

1. Introduction

A Content Management System (CMS) [1] is software Application or set of related programs that are used to create and manage digital content. Content management is a set of processes and technologies that supports the collection, managing, and publishing of information in any form or medium. When stored and accessed via computers, this information may be more specifically referred to as digital content, or simply as content. The system contains various options such as login/logout, data management by grouping same type of data, online blog, etc. which will give an interactive experience to users Content management is an inherently collaborative process. Mainly benefits of CMS are instant updates, Site wide changes, Ease-of-use, Security, User friendly.

WCMS [2] is a web application used to make, oversee, store and convey content on web pages. It is principally a website support instrument that permits non-specialized clients to make changes to the website, and thusly the website's composing and administrating apparatuses.

A client with little learning of programming dialects can without much of a stretch make and keep up the site's content. Web content sorts can incorporate content, designs and photographs, video or sound, and an application code that renders other content or cooperates with the guest. Web content

might be created, organized, and oversaw in a boundless number of ways.

Consequently, a wide assortment of WCMS [2] systems have been worked to deal with a wide range of circumstances. A portion of these applications are broadly useful, giving a predictable general structure to a content.

The expression "open source" [3] is a key qualification. It implies the product's source code is unreservedly accessible for the general public's viewing pleasure and change, however it additionally has numerous more extensive implications.

While exclusive programming is made, disseminated and kept up by a business, with open source programming these assignments are dealt with by a network of designers and clients. Exactly how compelling that network is at its chosen form of employment is a vital thought while picking an open source CMS.

Open source [3] content management systems are free from numerous points of view. A client can do what he/she wishes with the item and the code behind it, expanding and incorporating it as they see fit. There's no permit cost for the product, and anybody can download and introduce them on a web server without expense, however it is likely they should pay for the server, or pay somebody to introduce the system.

An open source CMS takes work. A client either needs to invest a great deal of energy into executing and looking after his/her system, or contract somebody to do it for them.

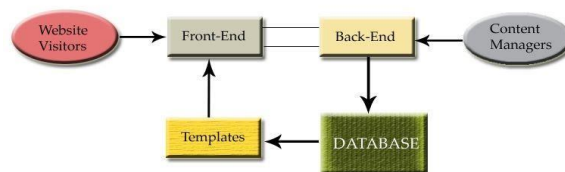


Fig. 1. Working of website visitors and web CMS

2. Existing system

A. Problems in the existing open source CMS

The principle motivation behind a CMS is to make it simple for even an amateur PC client to keep up and deal with a site. There are numerous CMSs accessible in the market, yet choosing which is the most appropriate will to a great extent

rely upon the website's necessities and the financial plan. Both Drupal and Joomla have a very enlarged and befuddling organization. This is on the grounds that both these bundles have many propelled includes notwithstanding the typical fundamental content management highlights. For instance, surveys giving the abilities to catch cast a ballot on various themes as different decision questions, or news sources, which give syndicated content (RSS, RDF, and Atom channels). This makes the CMS [1] intricate and hard to utilize. By and large there will be some exchange offs between the multifaceted nature of the prerequisite and the straightforwardness in picking a CMS. For instance, if the website just requires a progression of content based pages with a scattering of pictures, at that point a straightforward, fundamental CMS will be anything but difficult to utilize. Be that as it may, if the prerequisites for the website incorporate having numerous web journals, video and sound transfers, a gathering, an occasions timetable, and an online business office, at that point it is a great idea to pick a CMS equipped for giving those offices. Unavoidably however, that CMS will be somewhat more intricate to keep up. On the off chance that the website requires complex highlights, the best activity is to shroud these perplexing highlights. A decent User interface should make most normal assignments the most unmistakable and stow away uncommon errands with the goal that they don't act as a burden. There was look into done by University of Minnesota Office for Information Technology's convenience lab which recognized numerous ease of use issues with Drupal's [4] organization. As of this composition, Drupal's [4] organization interface is befuddling and not easy to use. Joomla's organization ease of use and expectation to learn and adapt is superior to Drupal's [4], yet insufficient to give a perceptible preferred standpoint to the end-client over Drupal. WordPress has a vastly improved and natural organization structure, which makes it simpler to learn. It incorporates highlights, for example, intuitive, bringing about the age of code without specialized mediation. It would be progressively right to portray such items as 'website manufacturers' than Web Content Management Systems. The fundamental element that isn't seen in a large portion of the present complex CMSs is instinctive and easy to understand website organization. Despite the fact that there are no permit charges with open source CMS [1], regardless one needs to pay a seller to make an interface plan or a topic, introduce the CMS, design it for use, execute the "subject", and furthermore pay for progressing support.

3. Comparative study of open source

A. Project definition and purpose

In this project, I have built a Simple CMS which is a web content management system that can be used to dynamically manage the content of a simple static HTML website.

For example, the news section of the Computer Science Department needs to be updated very often and since it is static HTML page, a technical person having knowledge of HTML

and JavaScript, CSS is required to update even a small portion of the section. The primary objective of this blogging website is to demonstrate how Simple CMS engine could be integrated with the "Blog and Post/Events", so that the process of updating the content becomes faster and easier and User friendly for the User.

The main purpose of this project is to have a user-friendly content administration interface that includes 3 most common CMS functions appropriate for small and simple websites, so that a novice user can manage the website content. A user having less coding knowledge can easily add, edit and format the website's content using the rich text editor integrated in the Simple CMS engine without having to deal with the HTML and JavaScript, CSS code.

Table 1
Comparison of Different Web Content Management Systems

Product	Programming Language	Database	Web Server	FTP Support	UTF-8 Support
Joomla	PHP	MySQL	Apache	Provided as a free add-on	Limited support available
Drupal	PHP	MySQL, PostgreSQL	Apache, IIS	Limited FTP support	Available
WordPress	PHP	MySQL	Apache, mod rewrite	Available as a free add-on	Available
Plone	Python	Zope	Apache, IIS, Zope	Available	Available
TYPO3	PHP	MySQL, PostgreSQL, Oracle, MSSQL	Apache, IIS	Available	Available
Open CMS	Java 1.4	MySQL, PostgreSQL, Oracle, MSSQL	Tomcat, Apache	Not available	Available

B. Using an existing CMS

Pros:

- Bunches of facilitated arrangements and online help is accessible for the off-the-rack items. These items likewise give live help and a devoted asset to support the site manufacturer. There are sites which examines the issues confronted while introducing or utilizing such an item and can assist another client with overcoming comparable issues.
- Others can fill in as manager if the client who incorporated it is inaccessible. Once the site is coordinated into the CMS, any client can peruse the manual and use it to deal with the substance.

Cons:

- Research time in choosing the one that is nearest to client necessities. There are parcels of CMSs accessible in the market, yet every one of these items has distinctive highlights. So one needs to examine every one of them and their highlights and select the nearest.
- An open source CMS is probably going to have a few bits of usefulness that are most certainly not required by a basic site, abating the general speed of the site.

C. Building Your Own CMS

Absolute command over the highlights: The engineers & developers know about the framework and are ready to manufacture new highlights faster without exploring through a specific structure design set out by an open source arrangement. Minimal effort. It will be shoddy to construct one gathering

your necessities than to get the off the rack item to do what is required. Straightforward. Thinking about the necessities first, it will be simpler for everybody in the firm to get it. No bug fixes from different designers not at all like the current open source CMS.

D. Advantages of this project

- Basic CMS is very simple to install and administer.
- The user interface is more instinctive.
- It can import and utilize static site pages in the CMS.
- Effectively make editable locales for customers inside the front-end of the site.
- It includes simple menu page creation and a decent editorial manager, which permits simple content designing, picture transferring and picture resizing.
- It additionally enables to include another template or alter the current ones.

4. Tools

A. HTML

HTML [5] represents Hyper Text Markup Language. A markup language is a language that comments on content in a way that is grammatically discernable so the PC can control it. It is a lot of markup labels used to portray website pages. The labels are what separate ordinary content from HTML code. They are the words between the <angle-brackets>. Different labels will perform diverse capacities, such as rendering pictures or tables. It is a blend of words and images which give guidelines on how the archive will be introduced. The labels themselves don't show up when you see your page through a browser, but their belongings do. Markup is the thing that HTML labels do to the content inside them. They mark it as a particular kind of content (emphasized content, for instance). HTML [5] reports contain HTML labels and plain content. The substance on a HTML page will be static. So as to change the substance, the supervisor needs some information about HTML and change the substance in like manner.

B. Javascript

JavaScript [6] is a customer side scripting language intended to add intelligence to HTML pages. A scripting language is a lightweight programming language. It is typically installed legitimately into HTML pages. It is a deciphered language which enables the contents to execute without primer gathering. JavaScript [6] can respond to events. A JavaScript can be set to execute when something occurs, similar to when a page has got done with stacking or when a client taps on a HTML component.

JavaScript can peruse and compose HTML components and can likewise change its substance and properties. A JavaScript can be utilized to approve structure information before it is submitted to a server. This spares the server from additional handling. A JavaScript can be utilized to identify the guest's browser, and relying upon the browser, load another page

explicitly intended for that browser. At long last, JavaScript can be utilized to create cookies and to store and recover data on the guest's PC.

C. PHP

PHP (Hypertext Preprocessor) is a generally utilized open source server-side scripting language for web improvement and can be inserted into HTML. PHP [7] pages contain HTML with implanted code. PHP offers a few preferences: PHP keeps running on various stages (Windows, Linux, Unix, etc.). PHP is perfect with practically all servers utilized today (Apache, IIS, etc.). PHP is allowed to download from the authority PHP [7] asset: www.php.net. PHP is anything but difficult to learn and runs proficiently on the server side. What recognizes PHP from something like client-side JavaScript is that the code is executed on the server, creating HTML, which is then sent to the client. The client was.

D. MySQL

MySQL is a database server is perfect for both little and large applications. It bolsters standard SQL and incorporates on various stages. It is allowed to download and use free.

5. System architecture

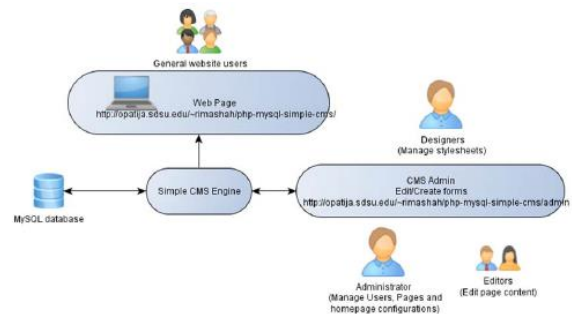


Fig. 2. High-level overview of Simple CMS

The high level architecture of the Simple CMS engine. Simple CMS [1] is intended to enable users with explicit roles to access specific segments of the CMS admin Interface. The administrators approach oversees users, design landing page, and distribute/unpublished a page. The editors can just adjust the page content. The planners can just alter the templates of various templates. General users legitimately get to the web page. At the point when the CMS engine gets the website page demand, it peruses the settings, then runs an SQL query to choose data from the database. It then ties the data to the chose template and shows the page to the guest. This isolates the substance from the introduction permitting the administrators to simply change the plan template with a similar substance any approved user can go to the administration interface and alter their own profile. A user with admin job can deal with all pages, however the editorial manager can just alter the existing pages and only a user with admin job can oversee other users. A user admin can deal with all data related with various templates, while the user with fashioner job can just alter existing data. A

user admin can arrange the site which incorporates setting up a landing page and a template for the website. After your template is coordinated into the CMS, you can adjust its substance.

6. Module description

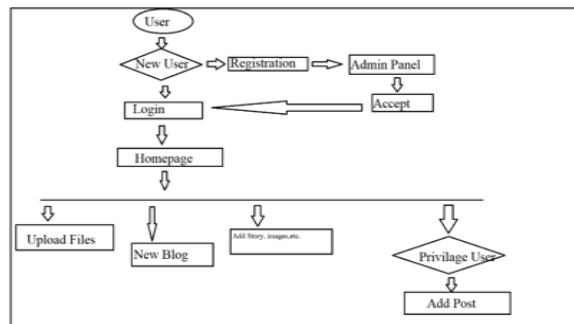


Fig. 3. Module of blog website using CMS

In this module description, Novice User will have two option registration or login, using open source code of JavaScript, HTML, CSS and PHP to make content user friendly and modify it with less code changes in open source code. After login user successfully admin will allow to access and make his/her individual id and password to access account respectively. In this web application user have lot of things to do like post video, files and images with blog, and they can edit their things to changes, it contains various options such as login/logout, data management by grouping same type of data, blog, post, editing blog with font, colour, size, etc. which will give an interactive experience to users.

7. Conclusion and future scope

Contingent upon the necessities and the budget, CMS required for a framework can either be worked sans preparation or one can utilize a current open source or business product. The key element to remember while building a Web based CMS is instinctive and user-friendly administration. It ought to incorporate imperative CMS capacities like detachment of design and substance, arranging the substance with proofreader and dealing with the work process for the substance endorsement before it is published to the users. I have

successfully executed the Simple CMS for the “Blogging website”.

The user can undoubtedly coordinate another layout, which is essentially the HTML and CSS files, into this application. When it is coordinated, the user can without much of a stretch arrangement and alter the page content utilizing the rich word processor without managing the HTML [5] or the CSS code. Therefore, this undertaking will be useful to the users with less specialized technical, enabling them to effectively deal with the content of their page. There are open doors for future improvement in this venture on no less than three explicit capacities:

1. *Multilingualism*: this feature will permit showing the content in different languages, potentially enabling users to see the content in their very own local language (native).

2. *Versioning*: CMS programming may permit the procedure of versioning by which pages are looked at in or of the WCMS, enabling approved editors to recover past adaptations and to proceed with work from a chose point. Versioning is helpful for content that changes after some time and requires refreshing, yet it might be important to return to or reference a past duplicate.

3. *Content conveyance*: CMS programming regularly aids content appropriation by creating RSS and Atom information channels to different frameworks. They may likewise email users when updates are accessible as a feature of the work process.

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