Design and Development of News Management System Based on WordPress

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Abstract. This article mainly uses the open source content management system (CMS)—WordPress to carry on the news publication website construction, carries on the correspondence request for the interface and the data according to the actual demand. Introduced the WordPress building and similar news release system function design, plate design and the actual needs. For the future related businesses, schools and individuals to develop a press release site provides a relatively good solution.

Introduction

With the advent of the "Internet +" era [1], the distance between us and the network is getting closer and closer, and we are almost always dealing with the network. More and more individuals, schools, businesses go back to choose to use the site to publish their own news, and because of cloud services [2] these years of hot, making these sites to further reduce the cost of building, everyone can have their own website era Getting closer.

Research Foundation of System Development

Requirement Analysis of News Management System

For this news management system, we first need to conduct a detailed analysis of the system, and then designed according to the function of the design of the database, mainly from the following two points for analysis:

1) User Analysis
   For all users who can access this system can be divided into two kinds, a user can only visit the system for browsing, that is, ordinary visitors, the other is the site builder. First, they need to log in to access the back-end interface of the website, and then they can add, delete, modify and categorize the information of the website.

2) Functional Analysis
   For visitors to the site, in order to facilitate the function of browsing, an increase of categories, so that users can directory button for the entire site news classified browsing, so you can facilitate the user to browse, at the same time for the Hope to browse some of the picture news, in the system's home page to set up a separate section for the picture news to display, so that in today's highly efficient era, users can quickly and accurately understand the contents of this site in a short time and accurate Builders hope that visitors to understand the information.

   For the site builder, in function, we first need to manage the contents of each piece of news, not only for press release, but also for news release. At the same time need to log on to the site, modify the password, modify the basic information of the site and so the basic functions.

Related Technical Basis

The system design first need to analyze the technology used in the entire system, mainly from the following three points for analysis:

1) Introduction to WordPress
   WordPress as a foreign use of a wide range of CMS [3], according to W3Techs 2015 survey shows...
that about 25% of the world's Web site is built according to WordPress. WordPress has been able to have such a high usage, in large part because it has a very large number of plug-ins, which provide a lot of support for its functionality, and its open source [4] also prompted WordPress security Sex than other content management system is much higher, users can feel more comfortable using WordPress site construction.

2) PHP technology

PHP (Hypertext Preprocessor), its biggest advantage is that compared to other programming languages, the implementation of dynamic pages faster even faster. At the same time compared to other programming languages also have open source code to support the vast majority of the mainstream database. In the website development process, the cost of the site is also a very important factor, we can use PHP + Linux + Apache + MySQL this development framework [5], without affecting the performance of the case, the cost is reduced.

3) MySQL database technology

As a mainstream relational database management system, MySQL Database [6] is mainly used to store, manage, process and maintain a large amount of data in the system. Combined with Navicat for MySQL software can provide a graphical interface to MySQL, users can operate the database through a graphical interface.

System Design and Development

Main Function Module Design

The main function of the design is divided into the following sections:

- Image carousel plate
- News classification section
- News management section
- News display section
- News display section

![Image of the main function module design](image.png)

Figure 1. The main function module design.

The Main Functional Modules of the Functional Analysis

The following is mainly for the analysis of the function of several modules:

- Image Carousel: The website will automatically obtain the news picture from the news uploaded by the user, and then upload the picture into the picture carousel section to dynamically display the latest five news pictures.
- News classification section: For the main classified management of news, first of all need to be classified among the news, you first need to design several subordinate news categories, and then upload the news when you want to upload to the column.
- News Management Section: The background needs to be released for those who have been managing the news, the main need to be released after the release time, news headlines, news
text and other content for the second revision, at the same time press release, but also hope
that Upload some documents, pictures, swf files and more.

- News display section: When the specific home page opens, it needs to be able to dynamically
display the latest news by category. The news can also be hyperlinked by the system at the
same time, and the second jump can be performed after clicking to complete the news
display.

- News display module: after clicking the hyperlink of news, you also need the content of
which can be displayed dynamically, you need to output the title, body, author, release date
and so on, and at the same time, you can display the next Articles and the function of the
previous article.

Development Environment Construction

This development mainly uses WordPress as the background, the environment is configured as
follows:

<table>
<thead>
<tr>
<th>Specific program</th>
<th>version number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating system</td>
<td>Windows7</td>
</tr>
<tr>
<td>PHP version</td>
<td>5.4.45</td>
</tr>
<tr>
<td>Database</td>
<td>MySQL</td>
</tr>
<tr>
<td>web server</td>
<td>Apache</td>
</tr>
<tr>
<td>WordPress version</td>
<td>4.7.3</td>
</tr>
</tbody>
</table>

First install the MySQL database and Apache, PHP software on the local computer, and then
download the WordPress decompression package on the WordPress official website, then press the
file, log in to the phpMyAdmin, log in to the MySQL database, create the database needed by the
system, then open the browser, http://localhost/wordpress, register, then visit http://localhost/
wordpress/wp-admin to log in, enter the background management interface.

In the background management interface, you can publish news, the theme of the application,
including some other settings.

Realization of Main Function Modules

1) Dynamic display module implementation

For WordPress we want to achieve dynamic news show, the main need to achieve the following
features:

Above the plate, we call the name of the column created for the background to dynamically display
the column name.

The sub div div uses two small divs to display news headlines and release dates by nesting sub divs
within divs. Mainly used here in wordpress <? Php while (have_posts()): the_post();?> Function,
this code is executed at the equivalent of:

```php
while (have_posts()) {
    the_post();
}
```

Here have_posts () is used to call the global variable $ wp_query-> have_posts () member function,
to check if there is a post, if any, by checking a loop counter for a global array variable $ posts true,
this time will choose to judge, when the return value is true, the statement body the_post (); The main
function of this function is to create a global variable $ post, and the information is filled into this
variable for easy access Down to use. Then when the implementation of judgment, if the database
still exists in the news, it will automatically create the div code to create the div, and then through
the_permalink (), the_title (), the_time () three functions to call the database The news about the link,
title, release time.
2) Photo Carousel module implementation

For the picture carousel section, here first need to design the picture carousel needs to be used, and then need to know about the general workflow of picture carousel, mainly need to upload pictures to the specified folder through the background, and then picture wheel The relevant code broadcast through the access to the relevant pictures, and then display the relevant pictures, but also need to be related to the hyperlink address attached to the picture, so the specific implementation process we need to use `<<? Php the_permalink ();?> Built-in function Call the link address, while setting the number of display images, the display sequence, and so on.

3) News display module to achieve

For one of the article display interface, through the creation of a single page to achieve the function, by calling WordPress internal function to get the title of the article in the database, content and so on. This uses the `<<? Php next_post_link ('% link');?> Function, which is used to call the title of the next article as a hyperlink to jump between the previous and the next Features.

4) Category column module implementation

In WordPress, you can create a new category according to the background of the increase in classification, the background settings here automatically give it a link address /? Cat = x, so the code is written, the main need to design the corresponding classification list. The corresponding two pages, the general approach is to create a new category-x file, which is the second level of the page design, similar to the left `<<? Php echo get_option ('home');?> /? Cat = 3 this Hyperlinks to jump between secondary pages. In the right side of the use of similar dynamic display module design, dynamic display of the news under the category, so as to achieve a variety of news classified display, classification management functions.

The front desk interface and backstage interface are shown in Figure 2 ~ 3.

![Figure 2. The front desk interface.](image)

![Figure 3. The backstage interface.](image)

Conclusion

This article describes how to use WordPress as a background, the interface design and function development, to set up a news site, and for some of the core code was introduced. In the follow-up development process, but also need to consider for example how to design a front-end interface with modern flat style of the site, these need to further think in the development process.
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