

Design of News Management System based on Web

Huadong Wang

School of Computer Science and Technology, Zhoukou Normal University, Zhoukou 466001, China

Abstract

In the age of Internet, the way of information communication is changing rapidly. There are some inevitable problems in the paper campus news communication. For example, the information dissemination lags behind, and the consumption of resources is not conducive to environmental protection. In order to adapt to the social development and promote the paperless campus news communication, it is imperative to improve the efficiency of campus news management. Therefore, the campus news management system came into being. Based on the ThinkPHP framework, the system uses the popular HTML5, PHP language and MySQL database to complete a complete campus news management system. This paper focuses on the research and development process of campus news management system, and realizes the core function of campus news management system. This system can be divided into two parts: the common user function module in the foreground and the administrator management module in the background. The foreground module mainly completes news browsing and comment, user login and registration, news query and other functions. The backstage module mainly completes news management, user management, comment management, etc. The system has simple pages, simple operation and perfect functions, which can effectively improve the communication efficiency of campus news and reduce the workload of staff.

Keywords

Campus news management system; ThinkPHP; MySQL; HTML5; PHP.

1. Introduction

In the wave of the Internet, the spread of information is more and more networked, and students tend to check the news channels on the Internet. In order to fit the development of The Times, to meet the needs of students, optimize the students convenient and efficient experience of viewing the news and developed the campus news management system. The system uses Web technology to develop, to achieve the maintenance of campus news website, improve the timeliness of news.

2. An overview

2.1. Project Background

In the history of human development, the ways of information transmission have evolved constantly, from the ancient pigeons, beacon fire and smoke to announcements and newspapers, and finally to the modern television, radio and Internet. The network of information makes the spread of information more diversified. Campus news management system as a medium of school media communication, can make the news dissemination more efficient, fast, accurate, low consumption. To meet the needs of campus news release, reduce the cost of campus news dissemination, improve the way for students to obtain news.

2.2. Purpose and Significance of the Study

Campus news management system transformation is the purpose of the campus information dissemination way, by the previous papers, publicity pages, such as relatively backward way of information dissemination to release news through the Internet, make the campus news transmission with real-time, high efficiency, to cater to the situation in the background of the current Internet and contemporary students the habit of reading news. With the rapid development of the Internet, the network media has become one of the important means for people to obtain information, and the news management system, as an important link of the network media, is worth our research. The campus news management system can get rid of the lag of traditional communication methods and is more convenient and fast. At the same time, compared with traditional communication methods, the system consumes less resources and conforms to the concept of ecological civilization construction.

3. System Analysis and Design

3.1. Feasibility Analysis

In terms of technology, the campus news management system uses the ThinkPHP framework, MySQL database and other mainstream development technologies. They are powerful, open source code suitable for existing conditions, can be convenient and quick system development. In terms of economy, the cost of hardware and software needed in the process of development of the system is low, and the operation cost after the completion of development is also at a low level. It only needs a server and a system administrator, so the development can be carried out without pressure economically. In terms of operation, the system is easy to operate, simple page, can simplify manual operation. Therefore, the design and practice of the campus news management system is completely feasible.

3.2. System Requirement Analysis

The campus news management system starts from the actual operation, aiming at optimizing the process of news release, making the news release efficient and fast, and improving the quality and efficiency of work. Let teachers and students get more timely news, as well as good interactive experience.

According to the above analysis, the main functions of the system are divided into foreground and background. The functions of the foreground are: news browsing and evaluation, news search, user login and registration, change passwords, view personal information, news search and so on. The background function is: add and delete the user, add and modify and delete the classification, add and modify and delete the news, add and modify and delete the comment, freeze and unfreeze the user status, etc.

4. System Development Platform and Technology

4.1. The PHP Language

PHP is a universal open source and free development language, with the advantages of easy to use, cross-platform and low learning cost. Its function is very powerful, has the concise syntax rules, the practicability is very strong, can connect a variety of databases has the compatibility, the speed, is used for Web development of one of the multi-purpose scripting languages.

4.2. MySQL Database

MySQL is a small relational database management system developed by Sweden's MySQLAB company. It is open source and free, and has the advantages of small size, low cost, fast operation, safety and reliability, complete functions, etc. In terms of compatibility, it can

support running across different operating systems, so it is widely used in small and medium-sized websites.

4.3. ThinkPHP Framework

ThinkPHP is a free, open source, fast, simple, object-oriented, lightweight PHP development framework. It was created in 2006 and follows the Apache open source protocol. It speeds up Web application development and simplifies enterprise application development. ThinkPHP always adheres to the principle of simple and practical, with excellent performance and simple code, and maintains the ease of use of the framework. It is one of the most influential Web frameworks in China.

5. Database Design

The system database design first needs to find out the entity in the system, analyze the entity should store the data information, and find out the relationship between the entity and the entity, and then according to the E-R diagram of the system, create the system database.

6. Detailed Design and Implementation of the System

6.1. At the Front Desk

The front desk mainly includes home page, user login, user registration, news column, news search, news comment and other functions.

6.1.1 News homepage

News homepage is the beginning part of the news management system is the most important part, the news homepage according to the news classification to accurately display news information, mainly including campus news, university life, university activities, university employment, academic research, education and teaching and other categories.

6.1.2 Login module

Login module realization process is from the front desk user click login button to submit the account password, the background to receive data through UserController call user Model class function to query the news_member whether have the same data in the table, with the exception handling to determine whether there is the user name in the table, the abnormal output \$e -> getMessage () indicates that the user does not exist, because the system module and the user is frozen, again to determine whether a state of the state is 1, no 1, the output that the user does not exist, and finally concludes that the data of the password is correct, Incorrect output password error, if correct, the data will be stored in the session() session, jump to index home page. At this point, the login process ends.

6.1.3 Registration module

After the user enters the account, password, email and clicks registration on the registration page, the background obtains the POST data transmitted by the foreground through input, and then processes the information. The UserController calls the add() function of the Model class to add the data to the news_member table and output the successful registration.

6.1.4 News Search

Point after the user submit keywords in the search box, background through Request: : instance () to instantiate objects called param () function to obtain the search keywords, and then call the Model class getNewsBySearch () function, the function USES ThinkPHP framework like () function will news_news keyword in the title and content in the table query, respectively, if the query result is empty, it returns an empty interface, the query to the results, using the fetch () to front desk render the final query results show to the user interface.

6.1.5 News comments

News comment is a function that enables users to click on a news and make comments at the bottom of the news and display them on the corresponding news page. When a user submits news comment, the system will automatically judge whether the user has logged in through session. If not logged in, it will prompt the user that he has not logged in and cannot comment. If the logged in user makes comments, the user ID, news ID and comment content will be submitted. When receiving the data in the background, `date('y-m-d H:I:s',time())` will be used to get the current time and then the comment model class will be called to store the data in the `news_momment` table.

6.2. Background Management

Entering the backstage management requires the system administrator to enter the backstage website, and enter the administrator account password on the backstage login page. In order to ensure the security of the system, we will verify the session session in each Controller to make sure that the administrator has logged in successfully. If the login fails, redirect to the login screen. The administrator has member account management, news management, classification management, comment management and other functions. You can delete, freeze users, add, modify, delete news and classification, delete comments and other operations.

6.2.1 User management

User management includes user lists, user freezes. First of all, the user list and user freeze page are displayed. All user information with status of 1 is judged and obtained in the database and their IDs are arranged in descending order. This method is called in the Controller class to get the values in the database for view template rendering. The display of user freezing information here is basically the same as that of the user list. The freezing page renders the user information with the status of 0 to the foreground according to the above method. The function of deleting and freezing the user is clicked by the administrator on the corresponding URL, and then it is routed to the `delete()` function and `status()` function in the Controller to delete and change the state. The `delete()` function determines and deletes data from the ID value passed by the foreground. After the `status()` function determines the ID, save the changed status value through the `save()` function.

6.2.2 Classified management

The classification management includes displaying the classification list and adding the classification information. It is mainly the addition, modification and deletion of classification. The added category contains two text boxes: the parent class and the name of the category. The system classifies the category by judging whether the category is a parent class or a subclass by the value of `PARENT_ID` field in the database. `Parent_id` of the parent class is 0, and `parent_id` of the child class corresponds to the id value of the parent class. When adding a category, the default category is the parent class, that is, `parent_id` is 0. If adding the value of the parent class, the category is a subclass, and `parent_id` is the id number of the parent class. After the page sends the response, the data is processed in the background and then added to the database. The process of modifying and deleting the classification is similar to that of adding. Finally, the `update()` and `delete()` functions are called to update and delete the database respectively.

6.2.3 News management

News management includes the addition, modification, and deletion of news. The operation steps are to first add the title, then select the parent category and the secondary category to determine which category the news is published in, then upload the picture and news content, and finally send the data to the background through the form form. The background receives the POST data and stores it into the database after operating on the data. This involves picture uploading. The steps are to instantiate the object through `Request::instance()` of ThinkPHP framework, then call `file()` function to get the picture, and then `move()` function to move the picture to the project's upload directory to realize picture uploading. The update operation

determines the ID number in the background after the foreground changes the information. The update() function updates the database table. Delete operation is to route to the corresponding controller's delete() function and execute the delete operation after the foreground clicks delete to delete the corresponding data.

6.2.4 Review management

order to prevent users from making inappropriate comments, comments made by users will be displayed in the background, and provide deletion operation. After the administrator clicks the delete comment, it routes to the delete() function of the comment controller and performs the delete operation.

7. System Test

In the life cycle of a system, we should not only conduct module and unit tests during the coding phase, but also conduct comprehensive system tests after the system is complete. System testing is carried out according to certain rules to ensure the quality of the system. System testing should account for more than 40 percent of the total software development effort. The main task of software testing is to find the most possible bugs in each module before release. It is the final review of software specifications, design, and coding. The purpose of software testing is to find code that has errors in the program. A successful test is to find errors that have not yet been found.

8. Summary

This system uses ThinkPHP framework, Mysql database, HTML5 language to achieve the basic functions of campus news release and management, the main functions are news browsing, user login, user registration, news search, user management, administrator login, news management, classified management and other functions. Set foreground and background for users with different permissions. The website is simple and convenient to operate, can complete the basic campus news release and management functions. However, due to the limited personal level, the design ability and implementation ability of the website development still need to be strengthened, and the completed system still has some problems to be improved. There is still a certain gap between the standardized and networked campus news release and management system. This will be the goal of my future efforts, to carry out a more detailed design and development, to make the campus news management website more perfect.

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