

Design and Implementation of Second-hand Book Trading Platform

Huadong Wang*, Sujin Yang

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

* Corresponding Author

Abstract

In order to avoid waste of goods and to help graduates deal with used books, it is necessary to build a functional trading platform for used books. The system uses B/S architecture, JetBrains PhpStorm 2019 as the development tool, PHP as the programming language, MySQL as the backend database. The basic functions of the platform include: management of registered users of the platform, management of category information of used books, management of detailed information of used books, modification of users' personal information, release of users' discarded books, collection of users' favorite used books. Through the application of the second-hand book trading platform, it can realize the reuse of book resources, reduce waste, and contribute to the creation of an energy-saving society.

Keywords

Second-hand book trading platform; B/S; PHP; MySQL; PhpStorm.

1. Introduction

Internet technology has been growing by leaps and bounds, all kinds of goods online trading is very popular, and in People's Daily life plays a very important and indispensable role, second-hand trading is the broad masses of fans friends can participate in, convenient bookworms buy used books, at the same time can save resources and recycles old books repeat. However, due to the many disadvantages of traditional second-hand book trade and the influence of many conditions and external factors, most people will use the second-hand book as waste paper to sell, the price is not only cheaper, but also cause a waste of resources. In order to solve the defects of traditional second-hand book trading, PHP language can be used for programming, and MySQL database can be used to store the relevant data of the second-hand book trading platform, so as to design and provide an online second-hand book trading platform. After registration and login, users can view the commodity information of used books, collect favorite used books and buy them on the used book trading platform. The buyer needs to submit a message, the seller can see after the voluntary trade with the old book merchandise. Users can also post unwanted old books for sale on the used book trading platform. Administrators need to manage the books sold by users, not only that, but also need to manage the registration information filled in by users. Looking at the wide coverage of the current network and the convenient way of shopping at home and abroad, and in view of the current situation of book waste and the wrong way to deal with, the design, implementation, application and promotion of the used book trading platform is very necessary and useful.

1.1. Background and significance of system design

People live in a real world full of a lot of information, and they are dealing with information every day. With the digitalization of information and the rapid spread of all kinds of information,

information resources are fully utilized. The lifestyle websites behind a lot of information are also trusted and used on a large scale. The cooperation and competition between the formal software research and development companies also make the software development function become more and more perfect and thoughtful. The application of software makes the efficiency of information processing very big breakthrough, a large amount of information in a short time for efficient processing. The traditional offline disposal of used books also limits the dissemination of used book information. However, if the information of used books to be sold is displayed on the Internet, it will make friends who have such needs know it quickly and shorten the sales time of used books. The design and implementation of the used book trading platform, to a large extent, reflects the environmental protection ideas advocated by the whole people. At the same time, it can also provide an equal and reciprocal platform for graduates in the graduation season each year, realizing the direct purchase of buyers and sellers without intermediate price difference. Moreover, the design of the platform provides a channel for people to cultivate themselves after their busy study and work. The circulation of books clears people's anxious heart and eliminates people's uneasy emotions. Through the demand analysis and function analysis of the used book trading, the overall layout of the page and data interaction were completed, and the system was tested for many times until it was stable. Finally, the design of the used book trading platform was completed.

1.2. Related Technologies

1.2.1. B/S architecture

B/S architecture is the browser and server architecture pattern. Work under this architecture, the user interface is implemented via the WWW Browser, few transaction logic in the front-end (Browser), but the main transaction logic on the Server side (Server), the model unified the client, will be the core of the system function realization part focus on the Server, simplify the development, maintenance and use of the system. B/S structure is the mainstream structure of software development, which is preferred by most software developers.

1.2.2. PHP technology

PHP and ASP have some similarities, easy to use. PHP can generate dynamic page content, create, open, read, write, delete, and close files on the server, and receive form data, add, delete, and modify data in the database, restrict access to certain pages on the site, and encrypt data. The primary goal of PHP is to allow Web developers to write dynamic web pages quickly, and the advantages of PHP over other commonly used languages are obvious.

1.2.3. MySQL Database

MySQL database is easy to use, and has been considered the "best partner" of PHP because of its cross-platform, reliability, free and open source features. A database is a collection of interconnected tables and other structures that help users manage transactions better. MySQL in a sense is a management tool, can achieve management, data check, database optimization operations and other functions.

2. System analysis

2.1. Requirement Analysis

The old book trading system provides users with an easy to operate, beautiful interface communication platform. Its basic functions include: user registration and login, user upload book information, user collection favorite books, user management personal book information; The administrator manages all books on the platform, manages the registered information of users and other functions. These functions are the basic functions in the process of online second-hand book trading. Through continuous investigation and research, a set of detailed process of online second-hand book trading has been further clarified. The use of the used book

trading platform makes it more convenient for college students and book fans to read, recycle book resources, help people develop good consumption habits, and save a lot of money for people. The old books trading platform has administrator, two kinds of user identity, the user first needs through old books trading platform to provide member registration page, complete the user fill in the registration of personal information, user registration has been a member of the platform, can browse and view books provided all books of commodity trading platform, users can leave a message under the old books fill in, When the user who posted the book sees the message, the two parties can use social software to trade. Administrator management user registration information, but also need to manage the user submitted old book commodity information and other content.

2.2. Module Analysis

2.2.1. Foreground module analysis

In the used book collection module, users can view the detailed information of all the used books sold by the seller on the used book trading platform, add the used books to my collection, and buy the books in their own collection at any time. Submit the message module, the party who buys the used book can fill in the purchase intention in the detailed information page of the book, and the seller can conduct fair trade after communication on the social platform after seeing the message of the buyer. Classification information module, users can search the second-hand books they want to buy according to the categories of second-hand books, and then decide whether to buy according to the second-hand book information uploaded by the seller. Used book search module, the platform users can buy the used book through the name of the second-hand book to search. If the search box is empty, the page displays all the books on the platform. User registration module, after the user fills in the registered account, password and other relevant information, the user information is inserted into the database user information table, and then becomes a member of the platform, with the platform rights. Personal information management module, users can log in the platform after the personal information page to account, password, name, telephone, address and other field values to modify. Release commodity module, the seller in filling in the commodity name, price, old book type, old and new degree and other related information can be published in the platform to sell the old book, and then all registered users of the old book trading platform can browse to the old book, interested in buying users can communicate with the seller contact, trade. In my commodity management module, users can query and delete the products they publish, so that they can manage the products they publish in time. In my commodity page, they can check whether their books for sale are needed by friends, and then contact buyers for second-hand book trade.

2.2.2. Background Module analysis

The registered user management module is mainly used for the administrator to view and manage user information. After the background login, the administrator can view and delete the user information registered on the old book trading platform. If ordinary users can not carry out related operations after the platform. Category information management module. In the type management page, the administrator can fill in the name of the old book category to be added and click the submit button to add the old book category. In the old book category management page, the administrator can also modify and delete the old book category. Commodity information management module is mainly to facilitate the administrator to query and manage the book information published by users, but also to delete the information irrelevant to the old book trading platform. In the Change password module, the administrator can change his/her own password after filling in the old and new passwords and reconfirming the reset password.

3. Design and implementation of main function modules of the system

3.1. Implementation of user function modules

In the commodity information module, the user can pass the "id" parameter of the old book to spinfo.php by clicking the "old book cover" or "old book name" two hyperlinks in the displayed commodity interface, and use the \$GET super global array variable in spinfo.php to GET the "ID" parameter. Through the select statement and "ID" query condition to query the commodity database, and then display the detailed information of the commodity, and through the update statement to update the click volume of the old book to achieve the dynamic synchronization of the popular old book interface. Users can directly collect old book goods, users can also submit a message at the bottom of the product details interface. The user enters the book buying intention and leaves his/her phone number in the text box and displays the message content on the detailed page of the current old book through the submit button. In this process, the user still queries the message table in the database through the "ID" of the old book and outputs it. However, in addition to the display of the message content of the buyer, the system also needs the output of \$data[username] and \$data[shijian], and synchronously display the information of "The person who left the message" and "the time of leaving the message". At the same time, the seller can check the user name of the buyer in the personal commodity management page of the used books, so that the buyers and sellers can communicate through the social platform to complete the used books trade.

\$GET[' action '] \$GET[' action '] \$GET[' action '] \$GET[' action '] \$GET[' action '] Use the INSERT statement to insert the relevant data into the favorites table of the database. Then click the "my Favorites" hyperlink, and you will enter myshouchang.php to query and display the favorites table. So the old book can be viewed in my favorites interface. The user can also use the "delete" button to clear the collection of old book information, this process will be processed in delsc.php, with \$GET[id] old book identifier and delete statement to delete the old book operation.

In the commodity release module, users can register the commodity name, price, type, degree, upload pictures and introduction of used books in the commodity release interface if they have used books to sell. Registration after complete, click the submit button, specify the < form > form submission to POST, the form has the browser "name" attribute of the element will be submitted, in FaBu. PHP can use the global variable \$_POST obtained data, the data obtained by the insert statement is inserted into the second-hand goods a database table, In this way, successfully published old books can be viewed by other login users of the platform.

Commodity management module, the user published the old book commodity, the user can view in the commodity management interface, the user can pass the old book "ID" parameter to del.php by clicking the delete hyperlink, and use the delete statement to delete the related information of the old book in the database commodity table in a timely manner.

3.2. Implementation of administrator Function Modules

In index.php, the administrator clicks the background Login hyperlink to Login to login. PHP, enters the user name and password for Login, specifies the submission mode of as POST, and the elements with "name" attribute in the form will be submitted by the browser. Use the super global variable array \$POST in login. PHP to obtain the form submission data, and compare it with the user name and password in the admin table of the database. If the authentication is successful, the message "Congratulations, Login succeeded" is displayed, and the Index.

Registered user management module, user registration submitted information, the administrator can click the registered user management hyperlink to view, in userlist. PHP, through the use of select statement to the database userinfo a table to query and display the

data in the form of a table. The administrator can also delete the registered personal information of a user by passing the user ID and the table name `userinfo` to `del.php` in the form of a hyperlink, and then using the delete statement to delete the user information.

Category information management module, the administrator needs to set up the category of old books, so that users can add books according to the category when registering book information. The administrator can modify and delete the classification. Click the modify hyperlink to pass "action=mod", "ID" type identifier and "TN" operation table name to `leixing.php`. After a series of verification processing, the administrator can modify and delete the classification. Update tablespace `leixing` to alter tablespace `LEIxing` id and `leixing` attribute values. Click Add Category Information to insert the category records into the `LEIxing` table with the INSERT statement.

In the module of commodity information management, the administrator can view the commodity information uploaded by the user, use the select statement in `tslist.PHP` to make fuzzy query to the commodity table in the database and display the output in descending order. If the information is not relevant to the content of the station, you can click delete to pass the relevant parameters to `del.php`, and delete the information with the delete statement, so that the administrator can timely deal with it.

Modify password administrator module, you can change the login password of old book trading background, click the "Change password" hyperlink on the left to enter `pwd.PHP`, enter the new password and new password and reset password to change the password, specify the submission mode of form as POST, In `pwd.php`, use the super global variable array `$POST` to obtain the form submission data for comparison and verification processing. After a series of processing, use the update statement to modify the attribute value of the `Pwd` field in the `admin` table in the database.

4. System test

The purpose of the system test is to find out the problems existing in the old book trading platform, so as to continuously improve the system, to ensure the effective operation of the system and provide convenience for users. In addition, also need to browse the system's front and back interface layout is messy. If these problems are not found and modified in time, the system cannot be used by users, so relevant tests need to be carried out after the system design is completed. The system function test operation and results are shown in Table 4.

5. Summary

The old book trading system is divided into administrators, users of two rights, after the user through registration and login, can be in the old book trading platform, view the old book commodity information, collection of favorite old books and purchase. When buying old books, the buyer needs to submit a message, and the seller can voluntarily trade with it. Users can also post unwanted old books for sale on the used book trading platform. The administrator needs to manage the book information uploaded by the buyer, not only that, but also to maintain the registration information uploaded by the user. The used book trading platform uses PHP technology for program development and operation, occupies small memory, and uses powerful MySQL database to store data information. The use of the used book trading platform can really avoid the waste of used books and give full play to the use value of used books. During the coding period, I had encountered the problem of garbled code in the program. Later, I found that the coding of PHP file itself needs to be consistent with the coding of web pages through the network search. In addition, there are many problems in the connection of the database, which leads to the failure of the website. Through consulting teachers and surrounding students, WE find out the problem, because the default port of MySQL database connection is

3306, and the port set in my program is 3307, so the program makes mistakes. Because he is the first time to try to develop independent procedures, and finally only to achieve the program requirements of the general function, in the interface layout and beautification, do is relatively simple, and not too much style, need to learn and make full use of CSS website style design.

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