



Design and Implementation of PHP Teaching Website

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Abstract: In the wide application of this highly developed information age, network learning can give full play to the advantages of IT in learning, breaking down the traditional teaching and learning, and not subject to the restrictions of time and space to provide a broader learning environment, but also improve the students' initiative and enthusiasm. PHP teaching site is based on the development of B/S browser/server structure, using ASP.NET technology and SQL Server 2005 database development, complete the registration of the landing, some question, courseware browsing module. The teaching website of friendly interface, clear function, provides students with a learning and exchange platform, can effectively improve the quality of teaching.

Keywords: Teaching Web Sites; PHP; B/S; ASP. NET; SQL Server 2005.

1. Introduction

1.1 Development status of teaching websites

In recent years, with the rapid development of information technology, computer network technology and multimedia technology, the deepening of educational system reform, information technology has been widely used. As a new form of learning, network learning is attracting more and more attention. Independent learning through the website is undoubtedly the best choice. It breaks the boundaries of traditional campus and creates a broader and diversified learning environment free from space and time restrictions. The Internet enables learners to participate more actively and enhance their interest in learning. The construction of network courses is an important link in the construction of digital campus, the promotion of educational informatization and the modernization process, as well as an important way to satisfy students' multi-form and diversified learning and improve teaching quality. In recent years, with the construction of courses at all levels of colleges and universities in China, the development of the curriculum website has been accelerated, and more and more

students learn through the curriculum website. How to build a good curriculum website, give full play to the role of the curriculum website in teaching, which is worth studying.

1.2 Research significance of teaching websites

PHP is a compulsory course in the major of computer multimedia technology, which plays an important role in multimedia teaching. At present, most teaching websites are closed, local and simple information processing system with single function. PHP teaching website, its main purpose is to fully reflect the characteristics of "cultivating independent learning ability as the supplement of cooperative learning ability", so that the platform can play an important role in teaching, and must play a role in promoting teaching. Nowadays, there are many course websites on the Internet, but the number of visitors is very small. Most of them are set up to apply for high-quality courses, and students hardly know about them. This fails to achieve our purpose of building course websites. Therefore, teachers should encourage students to study on the course website. Teachers can post their homework on the Internet, and students can communicate with each other on the website if they have any questions after class. In class, teachers only need to guide students how to learn and explain some key points and difficult points. More time is left for students, especially for some operation methods, steps and large-scale production, etc. If it is put into class, it needs to take up a lot of time. However, if it is put on the website, students can watch it repeatedly until they understand it. Therefore, we should give full play to the advantages of the website, give play to the demonstration and radiation role of high-quality courses, promote the sharing of high-quality teaching resources, and comprehensively improve the quality of teaching and talent training.

2. Related technical introduction

2.1 ASP.NET technology

ASP.NET is not a programming language, but a web development technology. Compared with other technologies such as JSP and PHP, ASP.NET technology has stronger execution efficiency, better adaptability, reliability and security, super custom function and expansibility, program structure and code separation. The advantage of ASP.NET is obvious in its simple design and implementation. ASP.NET is a technology for building dynamic Web applications. It is a compiled,.net based environment. Compatible with any.net language, easy to write clean code, and easy to reuse and share; In addition, it runs the program based on common language on the server, which is a compilation and running program based on common language, with high efficiency, which exactly meets the real-time requirements of the teaching website system.

2.2 SQL Server 2005 database technology

Considering the teaching website system database involves the data volume and the security request, the database Server USES the SQL Server 2005, the ASP page on the Web Server USES the ADO(ActiveDataObject) way to connect the database.

SQL Server 2005 is a relational database management system, provides rich graphical management tools, make system management and database management more intuitive and simple; Dynamic automatic management and optimization function; With rich programming interface tools, the program design for users to provide a greater choice, easy to develop; With good scalability, it can be used across multiple platforms. With the support of Web technology, users can easily publish the data in the database to the Web page. Support ODBC, ADO database objects, OLE data sources, etc.

3. Website design

3.1 Website architecture

The design of the system is based on the browser/server (B/S) mode, as shown in figure 1. It runs the browser at the client end, provides the user interface, is responsible for generating the user's request, and accepts the Web page data passed by the Web server; The Web server receives the request, converts it into the SQL statement recognized by the database server, and passes it to the database server. After the database server executes, it returns the result to the Web server, and the Web server returns the result to the browser of the client in the format recognized by the browser. B/S structure system is open, easy to maintain and expand. The client browser only exchanges data with the Web server, so the data security is relatively high.

3.2 Functional design of the website

The teaching website is generally divided into three functional modules: homepage, student page and teacher page. The specific functions of each functional module are as follows:

homepage module of the website: after running the system, you will first enter Premiere video to make the homepage of the course website. Different users have different permissions. The main functional modules implemented on the main page are user registration, user login (role differentiation when logging in here) and password retrieval.

student page module: there are two types of users: ordinary users (i.e., students) and administrators (i.e., teachers). After logging in the website and entering the page of students, ordinary users can modify passwords, browse and download courseware, view excellent works, and check the experimental exercises published by teachers.

Users can leave messages on the website according to their doubts and difficulties. teacher page module: the administrator enters the teacher page and can modify the password. In course management, teachers can upload courseware and excellent works, publish experiments, assignments and some related project designs related to course operation. Suspicious reply and other functions.

3.3 Database design

3.3.1 Demand analysis

Users' requirements are embodied in the provision, preservation, update and query of various information, which requires the database structure to fully meet the output and input of various information.

The data required for system login are: user name and password, in which user roles are divided into students and teachers; The data needed to register and save the information of students and teachers are: name, password, role, gender, mailbox; The data needed by students to leave messages and teachers to reply messages are: number, message name, message title, message content, name of the responder, reply title, reply content; The data needed for courseware uploading include courseware name, courseware size, courseware format and courseware saving path. The data recorded in the works include: work number, work name and work size. The recorded data of the experiment include: work number, work name and work size.

3.3.2 Conceptual structure design

Will demand analysis of user demand for abstract information structure namely the conceptual model is the process of conceptual structure design, conceptual structure design is to describe the user requirements of the real world, based on the classification of information, gather and summarize, establish the concept of the abstract data model, database design is the key, usually the concept of E - R model is used to describe the system structure design.

4. Realization of teaching website

4.1 Database connection

The connection of the database in the website is essential, the database connection object control used in the system is ADO, the database configuration in web. config is as follows:

```
< add name = "ConnectionString" ConnectionString = "DataSource = . \ SQLEXPRESS; AttachDbFilename = | DataDirectory | \ SPZZ. MDF; IntegrateSecurity = True; UserInstance = True "; ProviderName = "System. The Data. SqlClient" / >
```

4.2 Implementation of main function modules of the website

4.2.1 Implementation of the main page of the website

When the system starts to run, the first thing to enter is the main page of the website, in which the user's registration, login and password retrieval are mainly realized. Users who are not registered are not allowed to log in. Users must fill in their own mailbox when registering, in order to facilitate the retrieval of passwords; Users must choose their own roles when registering and logging in, and only by correctly selecting their own roles can they log in smoothly and then enter different homepages and conduct different operations.

When the user logs in, the user name and password cannot be empty, otherwise the information of "please enter the user name or password" will be prompted; If the user name and role are correct and the password is incorrect, the information of "incorrect user password input" will be prompted. If the user name and password are correct, but the choice of role is incorrect, the information of "the user does not exist, please check and fill in" will be prompted; Only when the user name, password and role are filled in correctly, can the teacher or student enter the page smoothly.

When you sign up, you need to fill in your username, password, and gender. You also need to fill in your role and email address, which you use when you log in and when you retrieve your password.

When the user retrieves the password, the user is required to know his or her mailbox, and get the password and return it to the page by querying the user's registered username and mailbox in the database.

4.2.2 Student page implementation

After logging in, the student user enters the relevant page and clicks the navigation option on the left of the page, which can perform such operations as password modification, course learning, excellent works browsing, doubt messages and experimental exercises. The specific description is as follows:

password modification: students need to enter the user name and confirm the password information before completing the password modification operation.

course learning: students can browse courseware directly according to their own needs, or download courseware before browsing. Experimental exercises and excellent works display are the same as courseware learning. Users can browse or download them directly.

excellent works: teachers can release excellent works completed by students for reference.

doubt message: students can leave messages to teachers for questions they don't understand or don't understand.

experimental exercises: according to their own needs and combined with the content and course requirements they have mastered, students can check the requirements of

experiments and some project making published by teachers on the Internet, and conduct corresponding operation exercises according to the requirements of experiments to improve themselves.

4.2.3 Teacher page implementation

If the administrator (teacher) directly enters the background management page, the administrator can click the navigation options on the left according to the operation needs to modify the password, doubt reply and course management and other operations.

Change the password, the implementation of the operation here teachers and students are the same. Suspicious reply, in the student page, after the student submits own message, will transmit to the system database, the teacher in the reply student message page will display the message person, the message topic, the message content, the teacher according to needs to student's suspicious message carries on the reply or the deletion. Course management: teachers can upload courseware, works, experiments and publish some courses according to their needs. After successful upload, the uploaded file name and format are displayed on the page.

5. System test

The main goal of this test plan is to be able to access the teaching site through a Web browser. Because this website is composed of three main pages, namely, the main page, the student and the administrator, which are composed of several modules together, the system tests each module as an individual, and designs the test scheme to verify the correctness of each module to ensure the correct operation of each module as a unit. Here is the implementation of the system test plan for the login system page.

6. Summary

Through the design and production of the website, I have a deeper understanding of developing a successful system. First of all, the preparation of the development system and the specific details in the design process directly affect the success or failure of the system. At the same time, rigorous and serious work attitude and style is not to be ignored. Especially in the face of difficult problems, the only way is to keep thinking, a lot of access to materials and an open mind to consult others, and in this process, self-learning ability has been fully reflected. Constant effort throughout the process is the key to success.

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