Design and Implementation of Network Teaching System Based on ASP.NET

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Abstract. The development and application of network teaching system is conducive to promoting the construction of online courses, teaching methods and means. This paper designs a network teaching system framework, functions, the establishment of the network teaching system database, the realization of the network teaching system. This system mainly realizes the function of teaching courseware and teaching documents, students' autonomous learning, after class communication, job submission, question answering and testing, etc., which can provide ideas for the construction of the open teaching platform.

Introduction

Network teaching is based on management. All educational activities carried out in the information technology environment, which has the function of interactive communication. Network teaching system is based on computer network technology, with the theory of system science as a guide, on the school's teaching work of the comprehensive analysis, the introduction of a variety of graphics, text, images, sounds, and other media, convenient for teachers and students in the teaching and learning of the integrated system.

As long as the students through a computer access to the Internet, you can learn the curriculum, and according to their actual situation at any time to adjust the learning content and progress. Compared with the traditional classroom teaching mode, the teaching mode is more in conformity with the current individual teaching thought, creating a new teaching mode, breaking the traditional teaching mode in time and space constraints.

The current network teaching system, the vast majority of the school, with powerful features, but the configuration is small and flexible. The system goal is the construction of a department of teachers and students a network oriented teaching "platform, teachers can through the release of the system function, the curriculum resources (including curriculum courseware, video programs into the network teaching platform, layout, correcting homework, released announcement and answer questions.

Students can through the system to complete the autonomous learning, online watch video, download and upload homework, the teacher can leave the message to the students to learn online, get rid of the traditional classroom teaching restrictions. System achieved a simple deployment, the

use of flexible. The student as the main body of teachers for leading the modernization of teaching thought, a real change in the traditional teaching with the teacher as the center, teacher, students listen to, and back teaching mode, strengthen the information exchange between teachers and students, students and students.

Teaching web site for the realization of online teaching, improve teaching efficiency and give full play to its role and significance, to promote the construction and development of curriculum teaching and learning to provide students with the B/S model of the network teaching system.

System function module design

The main task of the network teaching system is: Mountain administrators manage all kinds of resources through the management background, and teachers and students through their own space to achieve the purpose of teaching and learning. The teaching and management of the whole system can be divided into 3 main lines: students, teachers, system administrators.

the main line of the students. Students through their username and password to login into the student space, by creating their own curriculum directory, adding to the different classes, and to participate in class discussions, the completion of course assignments and implementation of curriculum assessment review and test paper library of learning.

Main teachers. Teachers through a user name and password for the distribution system into the teaching system, can create their own teaching subjects, and the subjects courseware upload, homework, pictures, video, audio and other teaching resources, for students to download learning. And through the interactive platform of the system to achieve and student interaction, including the question and answer interaction, job interaction and other types of interaction. And teachers also need to be responsible for maintaining and updating the teaching resources in the system to ensure the availability of teaching resources in the whole system.

Main administrator. The administrator is the network teaching system of management, after the identity verification, administrators can the resources of the internal system of whole dielectric, intervention and management of teaching process, so as to provide a reliable guarantee for the quality of teaching and the teaching effect. Specifically, the system administrators can be teachers and students, as well as teaching resources for the query, add and delete, and other management functions.

System frame structure design

Network teaching system based on Web, the development of the framework of the structure must be based on the structure of the model above, so that the system can be used to maximize the network.For the distributed network teaching system, the current commonly used development models are B/S and C/S

Past the traditional development mode is the C / S mode, the biggest advantage of this model is in data processing and storage in a relatively concentrated area, but this for large data capacity of the system will undoubtedly increase the burden on the system database server. Therefore, in recent years gradually emerged in the more scientific and reasonable development mode of B / S

The so-called B / s development pattern is whole distributed system of data processing and

storage were imposes on the server to complete, realize the system load balance, while requiring only women's common browser, you can achieve the resources of the system as a whole to browse and access without requiring a separate development special client software, greatly reduce the system development of the workload and the difficulty of development.

In this paper, the design of the network teaching system based on B/S will be used to develop the structure of Web. The four tier B/S structure is the client browser, Web server, application server and database server. The network structure of the whole system is shown in Figure 1.
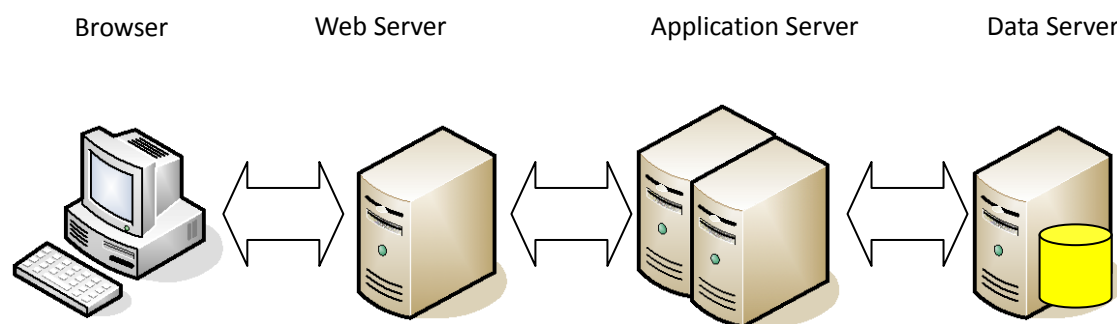
| Browser | Web Server | Application Server | Data Server |

Figure 1 The structural framework of teaching system based on Web

Function design and implementation of teaching system based on Web For the distributed network teaching system based on Web, how to implement the data operation in the system is very important. In order to achieve reliable data operation, we must first design the corresponding operation logic flow for the data operation, that is, the data operation logic flow. Specific refinement of the data on the path can be divided into the following categories of data operation to manage the following categories.

Data modification or query request. For data query or modify, the first is the user data query or modify the request, the system will according to the request to find the corresponding data node in the database, and returns the result to the user or provide data to modify the next day, when data modification after the success of re deposited into the corresponding data node in the database.

Formatted data request. When the system receives from the user's data manipulation instruction, first of all to format the data operation instruction, then you will be able to ring should request data, and data manipulation instruction format is analysis refers to the operation instruction of the data type, object, then on, path, and other basic information, so as to complete the data manipulation instruction to provide basic information.

Error message. When the user of the dielectric method or data manipulation instruction correctness verification system refused, the system will return to an error to the user message. The message will help users to further improve the system function.

Data manipulation command. When the server after received from the user's data manipulation commands, after the formatting of the data manipulation and confirm there is no error information feedback, the commands are passed to the control, thus completing the data manipulation commands.

Conclusion

With the development of modern educational technology, based on Web network teaching system has emerged as a great vitality and potential, at present the various education system are in the teaching system of network and information technology reform. In the construction based on the web network teaching system, this paper from two angles of structure and function of the module is discussed in detail the design scheme of the system and implementation scheme and the multimedia interactive function were studied and designed, which to further improve the network technology in the modern teaching system design application level has very good guidance and reference significance.

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