

Design and Implementation of Management System of Educational Experiment Course

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Abstract. with the reform of the education system and the improvement of the quality of the whole people, the enrollment quota of colleges and universities increases by 30% every year. The various colleges and universities in the original hardware and software conditions, the number of students have different degrees of increase according to the proportion, in order to ensure the quality of teaching, to play the greatest degree of hardware and software, it is necessary to develop an educational management system based on network performance. At the same time, the speed of development is speeding up and the scale of school is growing. It is urgent to use computer and network to complete a large amount of tedious educational work. Through the comprehensive investigation and research of the teaching affairs of Zhengzhou Teachers College, combined with the actual requirements of the academic year credit system of educational administration management, to design this kind of educational administration management system.

1. Introduction

Teaching management is the center of the operation of the school, the quality of teaching management is directly related to the status of a university in the contemporary social competition, even survival and development. Nowadays, the wide application of computer information processing technology provides a powerful means for teaching management in Colleges and universities. A high school to go in the ranks of the advanced age, modernization and scientific teaching management work, the key is to use a computer teaching management system of modern network information technology, implementation of computerized management. Educational administration plays an important role in the development and construction of the school. The level of educational administration reflects, to some extent, the overall situation of the management level of a school. Has a close connection with other aspects of school work, have important influence on the school teaching work, ideological work, management work, construction work, education reform and education policy implementation, and a series of work and affects the development process of the whole school. Under the current situation, with the continuous progress and development of society, the modernization of education, standardization and management modernization has also accelerated. The modernization of education calls for the modernization and normalization of educational administration. The modernization of management not only includes the modernization of management thought and management system, but also includes the modernization of management methods and management means. The establishment of educational management information system, strengthen the application of computer technology in the teaching management in Colleges and universities, will make the teaching management more scientific, standardized and modernized, thus greatly improving the educational level of management.

2. System Design Principles

The teacher file management system is a key project of the university informatization construction, in terms of software design, should be based on existing business meet demand, maintain system has certain advance, to enable the system to increase its life cycle. Reliability

refers to the reliability and robustness of the software system. The system should not occur or rarely occur in the process of operation, and the system should have a strong ability to restore itself. The scientific research management information system holds the school important scientific information, so the system security requirements are very high, on the one hand to ensure the consistency of the data, on the other hand, in the very case to ensure data loss is reduced to a minimum. Teacher file management system is a relatively independent system of our school information system. System development must be in accordance with the scientific development principle, on the basis of system analysis, do a good job of the overall design of the whole system. You can always add and modify the functionality of your application without having to re-implement the overhead of the original code. Establish a computer management information system covering all departments of the college and department. The campus network as a platform, using computer network technology to simplify the manual management process, processing an input to realize the information sharing and information management, to meet the different levels of demand for all kinds of information; the system should be in time for the school, Department of scientific research management departments at all levels to provide the domestic and foreign research dynamic information, assist managers to develop research programs, and according to the needs analysis of scientific research plan and the completion of the contract, implementation of the plan and control the execution of the contract; standard to establish the system of scientific research data encoding. The unified standard, to facilitate the realization of campus and exchange with external information; to adapt to the actual needs of the scientific research management system of higher education, according to the business functional module, the system has good scalability, maintainability and scalability. In addition, a good user interface and complete documentation are provided.

3. System Design

3.1 ASP.NET access database

ADO.NET in ADO refers to ActiveX Data Object, which is the latest version of Microsoft Corp's successful universal data storage, which is much better than ADO in functionality. ADO.NET is the name of a group of objects, it is provided by the .NET Framework, with many types of data interaction -- not only the data stored in the database, including the data stored in the email server, a text file, the application documents, such as Excel and XML data. Many new objects and programming excuses are added in ADO.NET, which makes the access to database simpler. Here are some of its objects:

(1) Connection object: used to connect to the data source - which represents the actual connection between the data source and the data user. Provides some information when building connections, such as the location of the database, the name of the database, the user account number, and the password;

(2) Command object: read or modify the data source on the connection, such as adding, modifying and deleting data;

(3) DataReader objects: to place and display structured data records that are query. The object returns only a read-only, forward only data stream from the database, and only one record is stored at each time in the current memory. The object is suitable for running a command that only needs to return a simple read-only recordset;

(4) DataSet object: the core component of ADO.NET. It represents a set of data in a database, including tables, constraints, and tables. The object can store multiple recordset. These records can be manipulated within the limits of the DataSet itself. One of its important features is that it has nothing to do with databases and SQL.

The ADO.NET can be connected to the database in two ways. If you want to connect to the Microsoft SQL Server database, then apply the SqlConnection object; if you want to connect to other types of databases (such as Oracle), then apply the OleDbConnection object. Because the

system is suitable for Microsoft SQL Server, so SqlConnection object is applicable. To apply the object, you must first apply the keyword Import to import the System.Data.SqlClient namespace into the application:

The namespace in which `<% @Import Namespace=System.Data%> //ADO.NET` is located

`<% @Import Namespace=System.Data.SqlClient%>` will be added to the page name / space

You can apply the SqlConnection object after importing the namespace in the page.

3.2 Interface design

User interface design is: (1) simple and clear at a glance, easy to use; (2) page of similar function, using a unified layout; (3) has the advantages of convenient operation and minimize the amount of data entry; entry (4) has good fault tolerance. The page is mainly designed by asp.net.

The interface is friendly, the man-machine interface is friendly, and the seamless interface with the Win2000 system is realized. The operation is simple and convenient. Management data security system implements data security through privilege management. The main use of the system administrator, information entry rights, day-to-day management rights. The operation authority of all kinds of operation level personnel. At the same time, the system also provides the operation log records, to understand the operation of the system, to ensure system data security. Query function is powerful, in the use of query, the output content and conditions of flexible settings, can meet the user's various query requirements. Managers can select reports according to the actual situation. To meet the needs of various users system considering the needs of many users: the system can be installed to the network server, all the different users in the network can share the system, can and other management systems to exchange data.

The teacher file management system has advanced application program. For example, for schools, teachers and students between the parents, the information exchange system; communication oriented information service system of students and teaching staff, such as E-mail and information retrieval; network management system for administrators, including the principal, administration, party and government office management system, staff file management system, teaching, scientific research, equipment, financial management system; examination and evaluation system, the network multimedia teaching system for teachers; network multimedia learning system for students, including VOD system of individual learning autonomy, interactive learning and multimedia courseware on demand system for teaching and learning; teaching information resource system, including teaching materials, material library, library virtual laboratory, electronic library and multimedia encyclopedia; real-time interactive for the modern distance education. The network video conference system, learners can see the process of interaction between teachers and students, the media in the virtual classroom, and can also be in a virtual classroom teachers and students interact with each other to discuss, the multimedia courseware in virtual classroom.

3.3 system design

Design pattern is a formal representation of object oriented program designers to solve programming problems. The development model of teacher file management system adopts the popular B/S mode, and the three layers of B/S architecture are presentation layer (presentation), function layer (BusinessLogic) and data layer (dataService). The first layer, the presentation layer: Web browser. Contains the display logic of the system in the presentation layer, located on the client side. Second layer, function layer: Web server with application extension function. Third layer, data layer: database server. The B/S architecture greatly simplifies the work of the client. The client only needs to install and configure a small amount of client software, and the server will take on more work. The access to the database and the execution of the application will be completed on the server. In this system, using the server operating system is: Windows Server 2000; the client operating system: Windows XP; Server2000: SQL; WEB database server using IIS5.0, WEB program by ASP.NET

4 . Summary

The design of the educational management system, has encountered many difficulties, such as the selection of network technology, network software, safety and management and network equipment, had no contact, just from books to see, there is no specific solution, there is often no way to start feeling problem only to ask the teacher and look at the books, although really finished about model, there are many places still not fully understood, it need to research study in future work. I got a lot of help from many school teachers during this period, I can complete the actual file management system of teachers better, especially teachers Xiao Han and Chu Zhigang, their spare time on my design changed several times, if I have to do one's own words is very difficult, there is a teacher's guide help is much more relaxed. I would like to express my heartfelt thanks to you!

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