Research and Design of University Paper Management System

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Original Research Article

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Abstract: Most academies' thesis management's focus on the graduation theses and the system which is special for managing theses by teachers is not well developed. This distributed paper management system is programmed mainly by ASP.NET and using SQL Server to manage data with C/S structure and distributed concept to meet the need for teachers. It can be used to add, modify and delete information of teachers in simple operations. Also, it has the function of adding, modifying, deleting and counting theses of teachers. Moreover, specific scores of these can be computed based on published time and types of periodicals. This system can give teachers great convenience in daily teachings and scientific researches.
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INTRODUCTION

At many colleges and universities management faculty of journal articles are chaotic, especially in the liberal arts colleges, faculty papers published every year more, lack of standardized their published papers, this kind of chaotic paper management way for faculty research and teaching and research of the knowledge taught by system. Some colleges and universities while also have their own digital library, but for faculty, to use the lack of flexibility, not easy to grasp in the path of his research, so more concise and convenient paper management system become the difficulties faced by many colleges and universities. This system from actual conditions, with the demand of faculty management of papers, the platform provides manage their papers to the members of the faculty, especially to draw what they published scores, and the number of papers published by your own past, greatly facilitate faculty academic studies and scientific research work [1].

System theory
C/S framework

C/S structure can make full use of the hardware advantages of client and server, and reduce the communication overhead of the system. C/S structure can reasonably allocate the work to be processed, complete data processing, data presentation and user interface functions on the client side; perform the main functions of the database management system on the server side.

C/S is only applicable to the limited number of users within the local area network (LAN), generally set up on a dedicated network, local area network (LAN) between through dedicated server to provide network connection and data exchange service, so is suitable for small range of user groups can read the database according to the results to the front desk [3].

ADO.NET

ADO.NET is an object-oriented programming interface provided by Microsoft. ADO.NET enables any programming language on.net to connect and access relational and non-relational data sources. The model structure of ADO.NET is as follows:
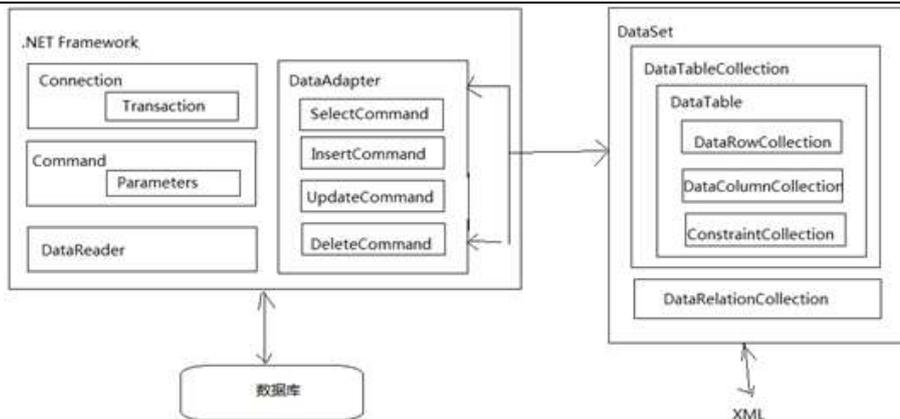
Fig-1: Model structure of ADO.NET

The.net Framework provides Connection, Command, DataReader, DataAdapter objects. Connection is used for database connections. The Command object is the data Command object, primarily SQL statements that add, query, update, delete, and modify operations to the database. The DataReader is a DataReader object that reads the data and can be used whenever the program needs to read the latest data from the database or simply read the data without modifying it. The DataAdapter is a DataAdapter object and a bridge between the data source and the DataSet to achieve interoperability with the data source. This enables the database connection to be implemented and an ASP.NET application is created using various properties and methods [2, 5].

C#

C# is a mature, object-oriented, and type-oriented programming language derived from C and C++ that matches the.net framework. And it has the following characteristics :(1) Simple grammar (2). Complete object oriented design (3). Close to Web and support most of the Web standards (4). Strong security mechanisms (5). Good compatibility (6). Easy to develop and maintain (7). Perfect error and exception handling mechanism. In addition, the drag-and-drop interface design of C# and friendly code prompt feature has great advantages in programming.

System framework and module introduction
System framework

The login interface of this system is composed of administrator interface and common user interface, and its main functions are shown in figure 2:
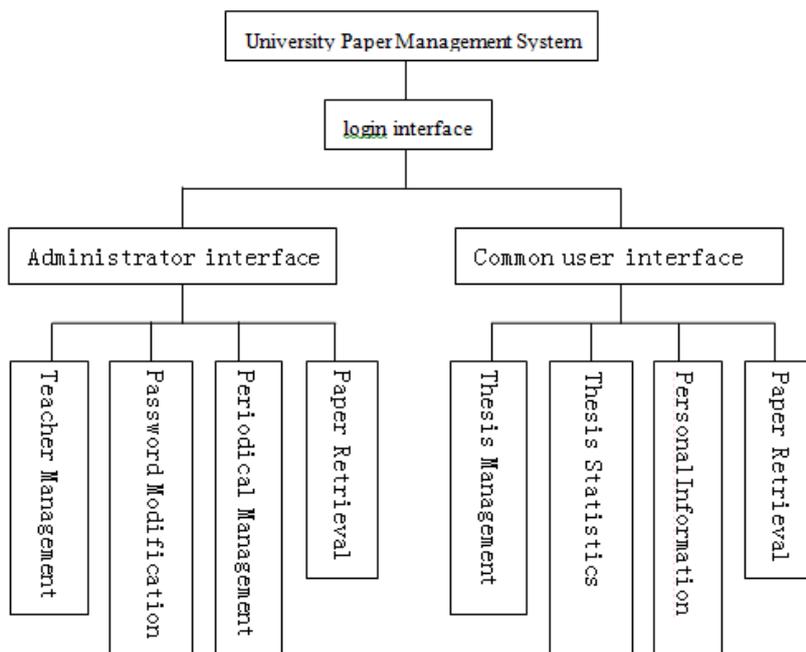

Fig-2: system function introduction diagram

Module introduction

- **Login interface**

The login interface enters the administrator interface and the common user interface according to the user login user name, and the ordinary user can only use the user name assigned by the administrator.

- **Administrator interface**

The administrator interface is divided into four functions: teacher management, password modification, periodical management and paper retrieval.

Faculty management functions realize faculty information view, modify, add, delete function, at the same time in accordance with the need of specific information view, dedicated paging, when users to add, to provide a single add, bulk import two functions, added new faculty information of a single individual, while bulk import the lot library of user, can put the user information by writing the background database, Excel spreadsheet so that can save a lot of information recorded at the time, at the same time this paper, the management in order to achieve the faculty administrator in add, import, each user at the same time for the user to apply for the login name and the default password, at the same time on the server side to apply for the user and the corresponding folder to store the user upload the paper.

Password change function including the modification of the password for the administrator himself and for the average user password changes, the administrator change their password, you need to provide the old password, and modify the password, ordinary users can directly change, to ensure the normal use of the user.

The function of periodical management is to increase, delete and modify the periodical. It is necessary to use the classification of journals to add and score the teachers' theses, so periodical management is to facilitate the management and statistics of the teachers.

Paper retrieval functions as an administrator provides an interface to browse the library all the faculty papers, at the same time can also choose a different paper to query the database, query condition specific query is divided into input type query and select query, query conditions for the title, author, keywords, the publication time, the type of paper, published, and can be controlled by click on the paper title to view the paper in the list, and will be downloaded to the local paper, so that users browse.

Common user interface

Common user interface includes paper retrieval, thesis management, thesis statistics, personal information and password modification. Thesis retrieval functions mainly to publish a paper queries, the user's own specific queries and query of the administrator interface condition, at the same time can also provide the dissertation details to view and download function.

The paper management function is the main function of this system, which is divided into four parts: adding, modifying, deleting and detailed information. Whole thesis management the main interface is also in the form of a list of papers show, can reveal paper list page, by clicking on the dissertation title in Chinese can display the list of detailed information, and teachers can check the detailed information for the selected papers. At the same time, every piece of paper after the data has a corresponding, modify, and delete link for the paper to modify the basic information and published information paper modification interface and paper display interface, also can remove the paper. For paper add interface, can according to the different types of paper, and the author's different types of add, through different information input and choice of thesis score, but also requires users to give their papers to upload to server side corresponding to the user's paper folder.

Dissertation statistics function mainly according to the number of papers and scoring statistics, each of these statistics can be carried out in accordance with the proceedings of publication type and year statistics, according to statistical year and can be divided into according to individual years and years period of two kinds of statistics, statistics can choose by the user as a single year all of the papers published in the years of a year, and then based on this condition, according to statistics, for the user can choose a suitable time, and then based on this condition the statistics published by the time the user related situation, the paper finally statistical results in a table to display. According to the type of publication collection, it is selected to select one of the journal articles published by this user, and finally, the paper scores and the number of papers are carried out in the form of statistical graph.

Personal information function can edit and view personal information. Users can modify some of their personal information according to actual needs and actual conditions. Modify password function to facilitate users to change passwords and maintain personal information security.

Database design [4]

The database tables used in this system include: login table, file upload table, journal level table, paper information table, paper type list, personnel table, disciplines and corresponding tables of first level disciplines, disciplines and projects corresponding tables. Some of the data tables are as follows:

Table-1: Login

Attribute	The data type
userName	nvarchar(50)
Pwd	nvarchar(50)

Table-2: Person

Attribute	The data type
PersonId	int
UserName	nvarchar(50)
RealName	nvarchar(50)
Sex	nvarchar(50)
Institution	varchar(MAX)
TeacherOffice	nvarchar(50)
RDirection	varchar(MAX)
PersonInfo	varchar(MAX)

Table-3: File Upload

Attribute	The data type
FileId	int
OldFileName	nvarchar(100)
NewFileName	nvarchar(100)
SaveAddress	nvarchar(200)
UploadTime	date
TypeName	nvarchar(50)

CONCLUSION

In this paper, using ASP.NET as the main programming language, using database technology, combine the concept of C/S architecture and distributed, paper management system design and development of distributed colleges, the system is easy to use a browser to manage their own paper, the interface design is simple and easy, making it easy for users to use, at the same time the system main operation way is to click on the select, reduces the user input, more human. In addition, it also provides the uploading and downloading function of the thesis, so that users can review and comb their papers in different periods. Journal of automatic identification is also another characteristic of this system, after the user to enter the journal papers, the page will automatically identify the corresponding level of journals, which can provide convenient for paper score calculation. In addition, the statistical function of the paper can visually represent the number and score of the thesis for the user in the form of tables and statistics.

At the same time, the system also sets aside the reserved page space for other users' needs, such as the blank part of the right column of the interface. In addition, the navigation bar also has a certain blank, so that new functions can be added later.

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