Research on ASP. NET Technology in Sports Performance Management and Physical Ability Analysis System

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Abstract — objective: With the rapid development of Internet, the database technology is more mature, and the establishment of the students performance management system is the urgent requirement of the current university management department. Methods: Using ASP.NET technology Scores Management and Physical Analysis System. Process: Learn from the current domestic advanced large-scale management system of university student management for the overall design and construction of the "Web-based" operating platform, to achieve a convenient Web front-end login and query. Results & Analysis: Through the data mining technology, so the isolated students become rule-based, so as to better serve the sports teaching. Conclusion: ASP.NET technology is feasible in sports performance management and physical analysis system.

Keywords - sports performance management; ASP. NET technology; physical abilities analysis

I. INTRODUCTION
The progress of computer and network technology provides the technical support for the information construction work in higher vocational colleges. In the past few years, Jiang-xi Manufacturing Polytechnic College has developed a series of construction work; obtain the office automation and educational administration system, etc. But, for the school teaching, still no operational software, especially for sports teaching in school. The majority of teachers in an annual physical examination stage, are facing the practical problem of huge workload, furthermore, along with the attention of the physique for the students in our country, according to the sports test scores over the years of the students, carrying out the targeted teaching is the important issue of the current sports teaching. The thesis discusses the application of the information technology, data mining technology in the sports teaching, combined with the college sports teaching practice. Aims to through the study, achieve a sports performance management system based on data mining, serve to the school sports teaching, and improving the quality of physical education teaching.

The daily physical education teaching is the inevitable requirement of the information age. It is necessary to use ASP.NET technology in Teaching.

II. ASP.NET TECHNOLOGY
A. Get to Know the ASP.NET Technology
ASP.NET technology is an important milestone in the history of Microsoft Web development, it is more simple than before that using ASP.NET to develop a Web application. Compared with Java, Perl, ASP.NET has the advantages of convenience, flexibility, high performance, high production efficiency, high security, integrity and object-oriented. It is one of the mainstream network programming techniques [1].

Figure 1. Principle of ASP.NET

ASP.NET is a new generation of Microsoft Company which launches a dynamic Web application development platform. And it is a new technology for building dynamic Web applications. It is a part of the.NET framework that can be used as either where.NET compatible languages (such as Basic Visual, C#) are written in ASP.NET applications. When building Web page, you can use the ASP.NET server control to establish common UI (user interface) elements, and programming to complete the task, which can improve the working efficiency of the program development to the degree of other technologies can’t match [2].

ASP.NET is looking for 117 to provide me a new blood powerful server diameter structure. In appearance, ASP.NET and ASP are similar, but in nature, it is totally different. NET ASP almost all based on components and modules, each page, object, and HTML elements are a running component object. In the development language, ASP.NET has abandoned JavaScript and VBScript, while using Framework.NET SDK is supported by VB.NET, C# and other languages as the development language. These
languages are generated in the background of the web was converted into a class, and compiled into a DLL. Since ASP.NET is compiled, so it is better than ASP has a higher efficiency [3].

Figure 2. The benefit of ASP.NET

B. The Advantage of ASP.NET Technology

The advantage of ASP.NET is that it makes the code more clean, ASP.NET code is easier to write, and the code is cleaner and cleaner, more readable than the ASP code, and the structure of ASP.NET code improves its reuse and sharing. ASP.NET has high efficiency, simple and flexible operation, high efficiency, high efficiency, etc. Many advantages and new features, therefore, make it one of the most popular network development technologies. ASP.NET has improved the configuration, scalability, security and reliability. NET ASP has canceled the component registration and DLL lock, comprehensive use of the XML configuration file, thus solving the problem. So you only need to perform a copy of the file to configure a Web application; ASP.NET provides better support for a variety of different browsers. For ASP developers, both for the low level of the browser to write code, or to limit the scope of the page's view, the browser is compatible with the problem seems to be an eternal problem [4].

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III. SYSTEM IMPLEMENTATION

A. Physical Fitness Test Types

The management of test types includes operation of adding, modifying, deleting, and setting up the test type. The data objects that are in operation are the test type tables of the database, such as Insert, Delete, and Update, respectively, database operation statement. This section discusses only the deletion of the test type. The library operation is a Delete operation, before the execution of the Delete statement; it is required to determine whether there is a test under the test type. If there is a project, you can't delete it, or you can perform the delete operation. Function implementation process as shown in Figure [5].

Figure 3. Principle of ASP.NET

Figure 4. Function implementation process

B. Performance Management

Performance management is the core of the target system, which mainly consists of two parts, includes the calculation of total score of input and score. The data object
of the test score is the score information, the table, and the score. The operation involves the score information table and the performance information table. The following two sub functions are discussed in detail [6].

Test score entry is to score information table to perform Insert operations, because a student has a number of sports. The test project, therefore, in the data table, certainly include the same number of records. The operating process can be described as:

The test project procedures take the user input ID, student number and score information.
If the verification is not through, then prompts the user to re-enter, otherwise the next step operation.
To execute the Insert statement to the test score table.
The database to determine if the return value is true, if true, indicating a successful entry, otherwise suggest the database operation failed [7].

C. Performance Calculation

For a student’s sports score, need to carry out the two weighted average, the first calculation is in each .Between the two projects, the second calculation is between different test types. Program flow can be described as follows.

From the first to the student records, student ID retrieval test score table, the retrieval results are stored in temporary data set.
The first record of the test type, and associated with the above temporary data set.
According to the weight of the test items, the total score of the first test type is calculated.
Take test type of second records, repeat the third step operation. Until all test types are calculated.
According to the score of the test type, the total score of the students was calculated.
Take a student record; repeat the second step operation [8].

D. Realization of Sports Performance Management Plate

The function is used to edit the student's performance information.
In student achievement information management, the administrator can set up grade, class. By choosing a specific student to view the students of all subjects, such as the need to make the changes only need to click the "modify" can make the performance. Information is to modify the state of the students in a course grade, and only the result of information in modifiable state. This is to prevent to modify other data error [9].

Also in the information management of achievement can accurately find a student achievement information. Only in student ID query text box input ID or in the name of the query text box input name can be looked up to the student's information. At the same time, it can show the number of the students who fail to pass the course.

Formula:
protected void Button 1_Click (object sender, EventArgs)
{
    float total1=0;
    float total2=0;
    float rs = 0;
    for (int n=0; n<Total number of subjects; n++)
    {
        if(((TextBox) FindControl ("textbox_fen"+ n. toString ())). Text. Length > 0 && ((TextBox) FindControl ("textbox_xueFen"+n. toString())). Text. Length>0)
            total1 += Convert.ToInt32 (((TextBox) FindControl ("textbox_fen"+n.toString())).Text)*Convert.ToInt32(((TextBox)FindControl("textbox_xueFen"+n.toString())).Text);
        total 2 += Convert to Int 32 (((TextBox)FindControl("textbox_xueFen"+n.toString())).Text);
    }
    rs = total1/total2;
}
// The text box to fill in the results is named textbox_fen1, textbox_fen2 ...... 
// In the credits of the text box named textbox_xueFen1, textbox_xueFen2 .......

E. System Conversion

1) System Test

System testing is an important guarantee for the correctness of the system function, and also the last part of the software development phase. In this chapter, we will discuss the process of system testing, such as unit testing, integration testing, pressure testing and installation testing, and the problems and solutions found in the testing process. It is proved that the system meets the needs of users [10].
The purpose of the software testing can be summarized as follows:

Confim and verify the quality of the software, mainly from two aspects, one is to confirm the software to achieve the desired purpose, on the other hand is to confirm the software is achieved through the right way to achieve the desired purpose.

Software testing is not simply a test of one or several functions, but also to test the rationality of the entire software development process. If a software development comes out, there are a lot of mistakes, which shows that the software development process is flawed. Therefore, software testing is to improve the efficiency of software development.

Test also need to guarantee the high quality of the software development process.

Test procedure

There are a lot of testing methods of the system. In this paper, we mainly use the unit testing, integration testing, interface testing and installation test [11].

Unit testing is to test the details of each functional module, so it is also called a module test. It is the entire software testing work, the smallest unit of the test work, but also the lowest level of testing activities. Unit tests need to be independent from other functional modules to test, in order to fully expose the potential problems of a single function module. These problems often occur in function, performance, interface and design constraints, and so on. Therefore, in a sense, unit testing is the beginning of the whole software development and testing, and is accompanied by the process of software development. Unit testing is a test of the individual functional modules, and therefore, it is necessary to test the internal structure. It has a detailed understanding of the work, and the best candidates for this work are the programmer himself. Only allow programmers to develop their own code for self-test, in order to improve the efficiency of unit testing, found problems in a timely manner, to ensure the program execution and prior expectations [12].

In the development process of the system, the unit tests are carried out, including correct data and various types of error data.

Experience shows that a responsible unit test method will find a lot of Bug at a certain stage of the development of software, and then modify their cost are also very low. In the process of unit testing of the system, many problems have been found, and the solutions are found in time, and some of them are described in detail [13].

Problem Description: in the input test results, the input data, click save, will prompt data error. The reason is because there are required for free. Solution: in the new page, plus.NET: enquired field validated control, you can achieve required verification.

2) Pressure test

Stress testing is the process of determining the performance of the system by using a comprehensive analysis of the performance of the system's bottleneck, or the performance point cannot be received by the performance of the system. The pressure test of this system is to increase the number of users of the land, until the system crashes.

Test procedure is the performance test which needs to be carefully prepared. In order to carry out the process in a certain way, test procedures are as follows. First, the goal of the test is to set the test method, the method of testing, the related technology and tools; second, we need to design test cases, run the test data, and record the test data and analyze the test results.

3) Installation Test

After the system development is completed, the test is carried out in the final round of the system. Its ultimate goal is to ensure that the software can be installed under different conditions. Common installation test found the problem of a wide range, including the installation of the hard disk space, the server environment configuration problems, and directory permissions is not enough, and so on. When you install the test, you need to prepare the installation manual and installation code. When you install the software in different operating systems are required to be installed in different operating system, the software is installed in the end, the software is installed, the installation file is written into the specified installation folder. If you want to install the software, the software is installed, and the software is installed, UI is also required. If you can do it, the installation program is capable of performing emergency operations. The design of the shortcut keys can be used correctly.

Through the test, the system is perfect, in the data analysis, the data show that it can meet the requirements. System performance is stable, in the user test environment and network test environment, the basic stability of the operation, with the increase of load pressure, system performance has been attenuated. Through the test can be drawn, the system achieved the function of the needs analysis, the performance indicators are normal, and has a strong maintenance, better scalability, reached the expected goal of the analysis.

4) System conversion

The conversion is a form of the student achievement in the process of the realization of the function of Arabia.

The sequence flow can be described as follows:

The first record of the performance information table is kept in the scores variable.

The first record is the split, the minimum value, the maximum value of the min and the max variable.

Executive judgment min<=scores<=max, if established, from the current results corresponding to school and business.

Name, and update the result information table, and jump to the fifth step operation, otherwise the fourth operation.

The next record of the assessment rules, then perform third steps.

The next record of the performance information table, if the null value, the program ends, otherwise jump to second steps.
F. Results and Analysis

To promote the reform and development of higher education in our country is an important work for the future of the country and the nation, but also a process of continuous exploration and development, which will encounter all kinds of problems and difficulties. It is very important for the students to develop the information system of the management of the students, and to develop an effective student management information system, which is very important for solving the problems encountered in the reform process.

It is a basic, long-term and regular work. The construction level is an important symbol of the whole school running level, school image and status. As one of the important parts, the construction of student management information has a very important role in promoting the construction of Digital Campus. University student management work is very large system engineering, it involves many departments, a wide range of work details are also a lot of information on this work, and we can improve our ability to solve the problem of comprehensive ability and comprehensive analysis of the ability. And this is the campus information, digital construction.

It is helpful to improve the management level of management, improve the work style and management level management information system development. The information system should be developed in the direction of the information system. From the report stream to the shared database, it can help the departments to communicate and work together.

These are conducive to the management of the update the concept, correct positioning, correct thinking, improve the efficiency of work, improve the management level.

It is a trend that the traditional management mode of students in colleges and universities is becoming more and more inadequate. The management information system is the trend of the times, and the establishment of a comprehensive management information system is the only way to realize the modernization of university management. The university student management modernization is a systematic project, the establishment and the corresponding computer system is the essential condition, but also must take this as the turning point, from the thought idea, the work method, the management pattern, the system and so on each aspect diligently, such ability realizes the high education management modernization grand goal.

In addition, the access control system based on role control can strictly control and prevent the user and the data information from the contact, but does not involve the identity role, effectively avoid the user's illegal operation, thus effectively improve the system's availability and security.

In short, it is a hard work to realize the automation and digital campus construction of university teaching management. It needs more teaching management staff to join the team, improve the level of teaching management information system, so as to improve the overall level of teaching management in Colleges and universities.

IV. Conclusion

Physical education teaching is an important part of school teaching, how to make the computer and network technology to serve the school. The daily physical education teaching is the inevitable requirement of the information age. The paper is based on the actual teaching practice.

The next is the development of sports performance management. The results obtained in this paper are: CI) the use of ASP.NET technology, A sports performance management system based on B/S mode is realized, which includes test type management and testing. Project management, performance, performance conversion and other functional modules, through the system, improve the performance management of Teachers efficiency. Using decision tree ID 3 algorithm, the results are analyzed. Through analysis, it is concluded that sports teaching related valuable teaching ideas. The research work of this paper is in strict accordance with the relevant ideas of software engineering. Methods, from the system analysis, system design, system implementation and system testing and other aspects of the detailed discussion of the system Development process. System analysis through the use case diagram of the system user needs to describe in detail. Mainly includes the overall architecture design, functional module design, and then from the database concept, logic, physics, etc. three database design. The system realizes the process chart of the test type management, and realizes the function module's management, the division and the conversion. Finally, the research on the target system is tested; test content includes unit testing, integration testing, interface testing, installation and testing the correctness of the system function.

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REFERENCES


