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# Construction of Student Personal Information Management System Relying on Computer

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**Abstract.** With the development of computer technology, the application of computer software technology is very extensive. Software systems has also improved the development of all walks of life rapidly. The emergence of software systems has greatly improved the management of schools and students. This paper mainly analyzes and summarizes the significance and the main design of the student information management system.

**Keywords:** Student Information Management System, Database, Information Management

## 1. Introduction

With the rapid development of higher education, the enrollment scale of major colleges and universities continues to expand. The number of students at school has increased sharply, and many new disciplines and majors have been opened. The batches, types, and majors of the college's students are diverse. These make the personal information management of students very complicated. Counting students' personal information requires a lot of time and energy in daily teaching work. Faced with this huge amount of information, in order to work smoothly, we need to establish a student personal information management system to manage information [1].

## 2. Analysis of student information management content

The school information management system is mainly to manage the relevant information of students in school. Student information is an important witness of student growth. As an important file information of students, the management and utilization of student information is very important. This paper starts from two perspectives of the current development status of student information management and the related problems encountered in daily management, and divides the information management of college students into two categories: dynamic information management and static information management. Dynamic information management refers to the management of related information such as student loans, dormitory management and second classroom activities obtained by students during the semester; static information management refers to some basic information of the student such as the student's name, gender, professional ethnic family Basic information such as members [2]. At present, the personnel in charge of student information management in Chinese



universities mainly include: students themselves, student counselors, student administrators at all levels, and managers of student information functions.

### **3. The significance and purpose of the construction of student information management system**

The traditional management mode is mainly branched by the academic management departments of the various majors of the college to manually enter and maintain student information. Due to the lack of a unified information comprehensive management platform, coupled with high-intensity data processing workload and decentralized management of information, the speed of information collation is slow, data loss is prone to occur, statistical errors, query work is inconvenient, and management personnel spend a lot of money. Time and energy have had a certain impact on other work in terms of information management. Therefore, a unified management system for the personal information of the entire school is necessary for the management of colleges and universities [3].

The establishment of this system can not only realize information sharing, facilitate inquiry and management, speed up the import of related information, streamline manpower, free management staff from tedious data processing tasks, and strengthen the relationship between various professions and departments. Information exchange between the college and students, parents' understanding of the students' situation at school, and information analysis of the students. It helps to optimize the college's management process and efficiency of students' personal information, improves the management efficiency of the entire college, and saves operating costs to a large extent, and realizes the informatization, modernization and scientificization of campus management, so students personally The construction of the information management system is of great significance.

(1) The establishment of a student information management system will not only further improve the management level of the school, but also create conditions for a better foundation for remote networking teaching in the future. Thereby enhancing the rationality and scientificity of the student information management system [4].

(2) The establishment of student information management system will greatly improve the efficiency of all aspects of work related to student information, so that changes in student information, performance accounting and ranking, etc. will be more rapid and accurate, and the relevant personnel of the school will be liberated from the complicated work.

(3) Since the system has established mechanisms such as user rights, it can reduce the phenomenon of random changes to various aspects and avoid errors such as information distortion and difficulty in tracking.

(4) The management staff can timely and accurately learn and arrange courses under normal conditions through the function analysis of the microcomputer system, arrange class teachers, and allocate temporary teachers. To ensure a good teaching order in the school [5].

## **4. System analysis**

### *4.1. System feasibility analysis*

The development of the student information management system is simple, but it takes a certain amount of time. The development tools and software used are almost free. And because the system can function steadily for a long period of time in the future, this improves the efficiency and brings great convenience for the school to manage student information. It can be seen that the development of this system is completely economically feasible.

### *4.2. System function*

The system mainly designs a login form, a password modification form, a student basic information management form, a student accommodation management form, and a student achievement management form. The main functions include login user, modify password, query, delete, modify, add, etc. , Which reduces the workload of teachers, improves efficiency, and brings great resources to school management [6].

#### 4.3. System security design

The system adopts three-level security control measures to classify and control terminal users. System users are divided into students, teachers and administrators. For different users, through network security control, application password and application authority control, database user password and data manipulation control. The three-level retention measures control its data access authority to ensure the complete and reliable operation of the system; the system has a warning function for illegal users.

### 5. Student information management system design

This system is mainly used for student management, the scope of use is the comprehensive management of students, teachers and course information, in order to finally establish the scientific, standardized and automated processing, display and background control operation mechanism of relevant information. The main function of the system is the daily management of student information, such as basic operations such as recording, retrieving, correcting and deleting student information. For teachers, it realizes teacher addition, course assignment, and various modifications to information, as well as course information. Operation settings and so on. The frame structure of this system belongs to the B/s mode, and it can be used without connecting to the client. It only needs a browser to implement a series of operations on data information planning, without being restricted by space and location. The object of use of the system is the administrator and the users designated by the administrator. The administrator has the highest authority, and can also assign personnel to operate the system and configure the corresponding authority. In this system, each user chooses to call the corresponding operation according to his own authority [7]. This system uses the SQLServer2008 database to install on the server side. The operator sends a request to the server by using a browser, and the Tomcat service receives the request and then accesses the database to perform corresponding operations. In this system, 4 types of data tables are designed and established. The information table of the manager table, the information table and the production information table. Here, the structure description of each table will be further given, as shown in Table 1 to Table 4.

**Table 1.** Administrator table

Field Name	Type of data	Read and write permissions	Description
username	varchar	Only read	User ID
password	varchar	Only read	password

**Table 2.** Course information table

Field Name	Type of data	Read and write permissions	Description
classnumber	varchar	Only read	Class number
classname	varchar	Only read	Class name
kkxq	varchar	Only read	Semester of the course
kcxs	varchar	Only read	Course hours
kcxf	float	Only read	Course credits
kcjs	varchar	Only read	

**Table 3.** Teacher information form

Field Name	Type of data	Read and write permissions	Description
Teachernumber	varchar	Only read	Teacher number
Name	varchar	Only read	Teacher name
sex	varchar	Only read	Teachers' sex
Age	int	Only read	Teachers' age
Birthday	varchar	Only read	Teachers' birthday
Teacherphoto	varchar	Only read	Teacher avatar
xibie	varchar	Only read	Teacher's department

**Table 4.** Student information form

Field Name	Type of data	Read and write permissions	Description
studentnumber	varchar	Only read	Student number
Name	varchar	Only read	Student name
sex	varchar	Only read	Students' sex
Age	int	Only read	Students' age
Birthday	varchar	Only read	Students' birthday
studentphoto	varchar	Only read	Student avatar
xibie	varchar	Only read	Students' department
zhuaneye	varchar	Only read	Students' Major
nianji	varchar	Only read	Students' grade

## 6. System implementation

### 6.1. User information management module

This module focuses on displaying basic user information. After the user logs in, the judgment processing is performed on the user, and the user's personal information can be obtained and displayed after the correct pass, and the information can also be modified and saved in the operation mode.

### 6.2. Student Information Management Module

This module is used to retrieve, add, delete, and modify student information. At the same time, you can also start a combined query based on various information such as student ID, name, birthday, department, major, and grade. The queried data is displayed on the page according to the specified requirements, and the student's information can also be edited in the corresponding result table, specifically involving student ID, name, birthday, department, major, grade, and photo. And other related information modification [8]. The delete operation is to extract the unique identifier of the student's student ID, and then complete the designated delete operation in the database. Finally, the data inquired can be exported in the form of EXCEL control. Another content of the student management module is to add student information. The technical settings cover all the student's characteristic information such as the student number, name, student, etc. After filling in these data in accordance with the format definition, the operation can be transferred and saved. The wrong information will be saved. Causes the logo to prompt, and it will not be saved.

### 6.3. Teacher Management Module

This module is mainly used to query, add, delete, and edit teacher information. Regarding the query, it can be expressed as: According to the teacher's employee number, name, date of birth, and department information, specify the design query for the teacher information, and the results of the query can be integrated and exported completely: the editing interface can get all the information filled in the database at that time Information, and built an intuitive display, can also successfully provide various modifications; delete is to delete the database after getting the teacher's unique ID. Adding means that you can add a new teacher, and fill it out in accordance with the predetermined content format. If there is something wrong, a reminder will be issued and it will not be saved [9].

#### 6.4. Course Information Management Module

This module is mainly designed to provide the functions of querying, deleting, editing and adding course information. Further, the query can be related to a combination of queries based on the course number, course name, and semester information, and the result information after the query is displayed in the form of a table, or the queried data can be downloaded and saved to the local for viewing next time ;Editing is the first to obtain all the information of the course to be edited, and can make changes to the needs of each information, and at the same time realize high-quality preservation; adding the information of the course is mainly for the task theme that matches the course. When adding, it must be in accordance with the predetermined format. If there is an error, a prompt will be given and it cannot be saved.

#### 6.5. System Management Module

The module can modify the password. To modify the password, you need to enter the old password and two new passwords. If they are not consistent, it is forbidden to modify it; another function is to exit the system [10].

### 7. Conclusion

In summary, with the development of society and technology, it is an inevitable trend to apply computer management systems to school student management. This can not only manage student information better, but also improve the reasonable management of student information. This can promote the effective development of school education.

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