# **C-based Student Association Management System**

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### **Abstract**

As schools pay more and more attention to the overall development of students, student clubs in universities are especially important, but the management of student clubs is not convenient. Student club management system can manage the information of club members, club activities and so on, which is convenient for the school to manage each club. The author developed a student club management system based on C language, and realized the functions of adding, deleting, and checking clubs.

# Keywords

C Language; Student Club Management System.

#### 1. Introduction

In the 21st century, the number of colleges and universities around the world is increasing, driving the development of education, and at the same time, modern colleges and universities are paying more and more attention to the overall development of a person, so the number of school clubs is also increasing dramatically, teachers in colleges and universities are mainly engaged in managing students, teaching, managing student unions, etc. The management of clubs is often neglected, but according to the information statistics of colleges and universities nowadays, clubs play a great However, according to the information statistics of universities nowadays, clubs play a great role in universities, such as soccer clubs, basketball clubs, etc., but the management of student clubs is often not in place, so we developed a system for managing student clubs in universities based on C language. In this paper, we designed a student club management system based on C language [1].

# 2. Demand Analysis

The club management system needs to have three parties (teachers, clubs, and students) with different login interfaces, with the following functions.

Teacher side: able to log in and add, delete, change, and check various information of all clubs such as name, gender, birthday, contact information, personal hobbies, home address, etc. of the club manager [2].

Clubs: You can login and add, delete, change and check various information of your club, such as recruitment information of your club, information of related activities, name, gender, birthday, contact information, interests and specialties of your members, etc.

Student side: You can log in and check the information of each club, and you can submit your resume to the club.

In addition, we need to include some special functions, such as reminding of club members' birthdays, reminding of club invitations, reminding of major club events, etc., a week in advance to ensure that users have sufficient time to prepare.

Accuracy requirements.

(1) Completeness and correctness of information, such as cell phone number with 11 digits, date of birthday as valid date, etc.

(2) The same key data to give distinction. The same names of friends are distinguished using numbers to prevent overwriting of information [3].

# 3. Technical Analysis

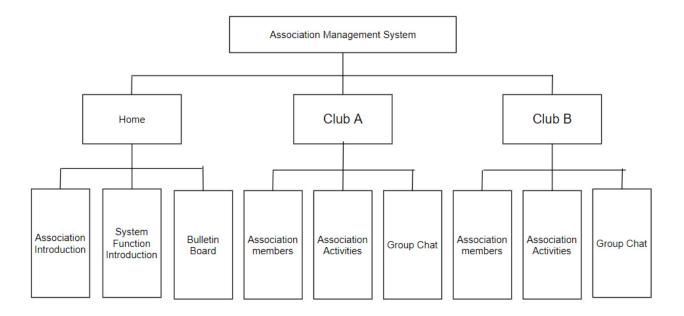
Development language: Use C for development. C is process-oriented and efficient in execution compared to Java, which is object-oriented and inefficient in execution. C is a process-oriented language with high execution efficiency, while Java is object-oriented with low execution efficiency, and the number of bits of basic types in C is related to the operating system and machine, while Java is fixed.

Development tools: Choose VS (Visual Studio), the most popular integrated development environment for windows platform applications, as most students use the Windows operating system, VS is extremely suitable for everyone, you usually use VS2010 for classes and exams support a variety of different programming languages, VS2010 The native support: Visual Basic, Visual C++, Visual F# four programming languages. And now Visual Studio 2019, released by Microsoft on April 2, 2019, introduces the feature of real-time sharing, while Microsoft has optimized the Debug function of VS to make it more efficient and convenient.

Database: This database uses SQL Server database, which is open source and free to use, and is a popular relational database for student association management system.

# 4. Design Analysis

## 4.1. Functional Framework



**Figure 1.** C-based association management system

## 4.2. Login Template

Each user has his own information, and the user logs in to the personal information management system to operate the corresponding association information, by connecting to the local database, by looking for the entered account number query, if this account exists and verifying the correctness of the password [4], and if it is correct, then directly accessing the system.

# 4.3. Individual Landing Party Modules

Teacher side.

Manage the societies information module, put each society's information into a Societies structure variable separately, each structure contains society name, society profile, society leader, society's ID, and number of societies.

```
struct Societies{
    char name[20];//name of the society, primary key
    char intro[100];//profile of the society
    char head[10];//name of the head of the society
    int id;//connected to the club's database, primary key
    int number;//number of people in the club
}[5]
Club side.
```

Clubs manage information about each student, including the student's name, student's school number; also manage the club name, club profile, club activity information id (link to a new data table), student information id (link to a new data table), in both new data tables is the club id and the current data table information id as the primary key to uniquely identify the student.

```
struct team{
  char name[20];//club name
  char intro[100];//club profile
  int id;//club primary key id
  int ac_id;//activity information id
  int sc_id;//student information id
}
```

Student side.

Each student's own information, including their name, student id, join the association and other information, this structure and more complex, no longer elaborate.

#### 5. Conclusion

The club information management system combines the needs of modern society, can be full of school storage of club information, and contains club activities, club member birthday reminders, club chat (including task release, etc.) functions to meet the needs of people in today's society, and the design and development of the club information management system, can accurately store a variety of information about the club, easy to query and modify, while this club information management system can be applied to other aspects, such as the management of student union personnel, the company's management of information about employees in various departments, etc., has a relatively wide range of uses.

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