

AUTOMATED SCHEDULING SYSTEM FOR UNIVERSITY CLASSES

This article mainly studies the design and implementation of the university classes scheduling system, analyzes the current situation and development trend of this system, and implements a C#-based university classes scheduling system based on demand analysis and overall design.

INTRODUCTION

The university classes scheduling system is the core content of the academic affairs management of colleges and universities. The essence of the class scheduling problem is the best arrangement and combination between the five elements of teacher, classroom, class time, curriculum, and class location. In addition to standardizing the workflow of class scheduling management, the class scheduling system also has the function of promoting the development of information of academic affairs management, and adapting to the requirements of modern education today.

I. AIM AND OBJECTIVES

The purpose of the university classes scheduling system is to speed up students' inquiries about course-related information so that they can handle all operations according to the required standards. This automated system will greatly reduce the time for students to query course information. It can store all important information safely in a database that can be restored from time to time. The system is convenient and easy to use. The efficiency of everyone involved in the automation system has been improved. It is easier to save data. In addition, teachers can directly modify the course schedule according to their own needs, and students can also get corrections directly on the schedule. The goal of this system is to be able to develop a computerized lesson scheduling system that can automatically generate lesson schedules according to rules and constraints, instead of complex manual work. Because the Web-based online curriculum, as a new type of academic affairs management, has brought great convenience to class scheduling personnel, it has very important practical significance and broad development prospects. It is also hoped that it can facilitate the course arrangements between students and teachers and make effective use of time.

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II. ADVANTAGES

Using the university classes scheduling system can greatly reduce the time consumed by students to query course-related information. Visual class scheduling, if you need to adjust the class, the teacher and the student can communicate and solve it, and the academic affairs teacher only needs to supervise the result of the adjustment. It has the function of manual class scheduling that is easy to use, can also automatically check conflicts, and can automatically synchronize the schedules of relevant teachers and classrooms.

III. IMPLEMENTATION

The system will run on the Windows 10 operating system, use C# as the development language, use appropriate algorithms for arrangement, and use SQL Server database technology to design a class scheduling system, in order to replace or partially replace labor, save the energy of academic staff, and effectively reduce various conflicts in manual class scheduling, and improve the efficiency of class scheduling. Complete the login and schedule classes through the knowledge you have learned, manage courses, delete, add, and search for detailed information about the scheduled courses, and have a better understanding of project development based on the C# framework during the final completion of this system.

- Operating System: Windows 10/11
- Database: Microsoft SQL Server. Microsoft SQL Server is a comprehensive database platform and a complete set of data solutions, including complete data solutions such as database storage, intelligent analysis, big data platform integration, and data mining. It has the advantages of easy to use, good scalability and high degree of integration with related software.
- Presentation Layer: ASP.NET, HTML