COURSE OFFERING

COMP210 Lab Project
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I. Introduction:

A. Background:

In today's dynamic educational landscape, institutions face the challenge of managing an expanding array of courses to meet the diverse needs of students. With a surge in enrollment and a growing demand for specialized education, traditional course management systems often fall short of providing efficient and user-friendly solutions. The need for a robust course offering system arises from the desire to streamline the process of course registration, modification, and deletion, ensuring a more organized and accessible educational experience. This project seeks to address these challenges, enhancing the overall efficiency and effectiveness of managing course offerings within the educational institution.

The idea of this system is to provide an easier process for students to reach their courses and enroll in them without displaying the CRNs on one page and enrolling them in another.

B. Scope:

Since we were limited by time, we created a simple course offering for the computer engineering students only and the different CRNs were randomly assigned to the schedule.

II. System Design:

A. User Authentication:

4 admins that have each their ID and password can modify the CRNs of any chosen student removing any enrolled course.

Students have the option to sign up for the first time and sign in for returning students. After signing in, the student has the option to either register for a new course or display his current schedule.

B. System Architecture:

The system relies on several functions:

1- Course offering: which displays the available courses for the user.
2- showCrn: which generates multiple CRNs of different times for the chosen course.
3- Printsche: which prints the layout of the schedule.
4- Printcourse: Fill the table with the courses.

C. Data Model:

The system uses an array of pointers of an array of pointes... to track the given CRN and know to which course it refers, and it uses file processing to save the student's IDs, passwords, and the registered CRNs.

III. Implementation:

A. Programming language and tools:

The project uses C language and Microsoft Visual Studio as a compiler.

B. Functionalities:

1) Course Registration:

The student can register for any course he likes after signing up.

2) Course Modification:

The ability of the student to modify his registered courses was not implemented in this project.

3) Course Deletion:

Only admins can delete registered courses.

IV. Testing:

A. Singular testing:

Each person was assigned certain tasks/functions to do.

After finishing his/her requirements, this person has to test his work before submitting it to an assigned person that started joining the work and testing each part to make sure the program turns smoothly.

B. Difficulties:

The main problem that we faced was how to join the work of all 4 people together.

The mistake we made was that we didn't communicate well with each other which led to functions that were not compatible with each other which took an effort to solve.

V. Results and discussion:

At first, the idea of the project was to only register courses for students, but we noticed that we finished a little early, and due to the enthusiasm of some of the members, we decided to implement the admin role and sign in, up, and out options with file processing.

This process took time and nearly resulted in a late submission and thankfully because of our hard work and late nights, we made it happen.

VI. Conclusion:

A. Summary of achievements:

We made a well-organized system that is almost fully functional.

This system offers the opportunity to welcome as many people as possible who can register for as many courses as they like.

And has an admin function that can change the courses of the students.

B. Future work:

There is a lot that can be added to this project such as the ability to modify courses by the student, more control for the admins, additional courses, majors, and even campuses.etc