National University of Computer & Emerging Sciences, Karachi Campus

STUDENT MANAGEMENT SYSTEM

Project Report

Section: 3D

Discipline: BSCS

Group Members

Lab Instructor

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Figure 6 7

Project Aim

The aim of this project to create a Student Management System that gives any institution a way to manage students' records in a systematic way.

Project Specifications

The Project specifications include:

1. Storage of Information about enrolled students
2. Modification of pre-saved student record
3. Deletion of a student's record
4. Search Feature
5. Login system for Admin

Variables used

- Different Prompts for displaying string on screen
- Bool is used as an operator that compares and checks on which loop to jump
- Username and Password to take admin entry inputs from user
- Un and pw to compare the already saved login info
- Choice gives the user the option to choose anything in the menu
- Name, roll no, course, address, email and contact saves the students info into variables temporarily after which it gets moved to file
- Buffer memory that stores data temporarily when being read from file
- File name to name the created file in program
- File handle that would stores an integer value that is used to address an open file
- Txt to create the file with ".txt" extension

Procedures used

The following procedures are used in this program:

1. ISLOGGEDIN PROC
2. INSERT PROC
3. SEARCH PROC
4. MODIFY PROC
5. DELETE PROC

Is logged In Proc

The username and password can be entered by the user using this procedure, where it then reads the data using the built-in readstring procedure. Next, if your username and password match those already in its database, it validates them and grants you access to the project's menu. If not, it terminates the program after a specified number of failed tries. The registers are pushed onto the stack soon after the procedure is called and popped right before the return (i.e., ret) instruction in order to save their contents.

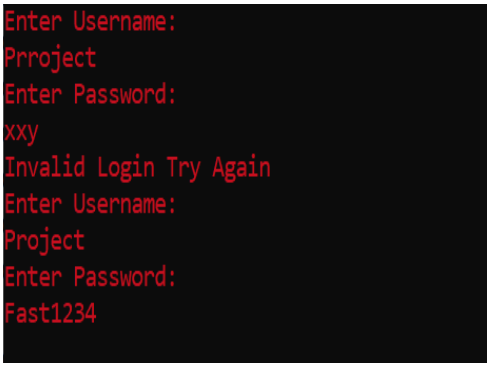


Figure 1 login

Menu Proc

This procedure displays a menu for the user to choose an option. The options provided are inserting a record, modifying a record, searching a record, deleting a record and

exiting the program. The user will be asked to input the desired choice and based of the desired choice the appropriate procedure will be called. In case, the user chooses something that is not part of the given options the menu proc is called again.

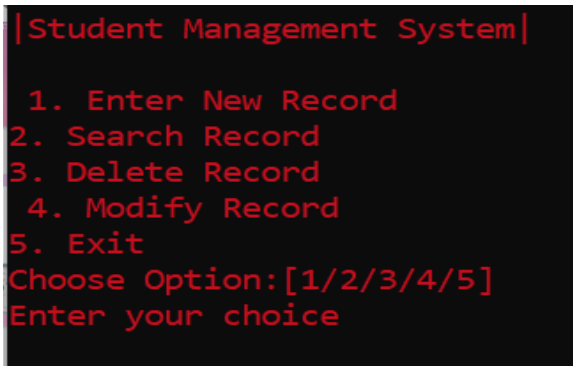


Figure Menu

Insert Proc

Details about the student, including name, ID, address, email subject, and contact number, are entered using this procedure. The user-entered string is stored in the variables that are created in the data section. A file is created for each student based on the student ID that is saved in the roll number variable, which is specific to each student, once all the inputs have been gathered inside each variable. An output file with a.txt extension is created. The built-in procedure write to file is then called, which inserts all of these inputs into the file in the same order. Each variable is then extracted and transferred into buffstr one at a time. The output file is closed after all of the inputs have been added.

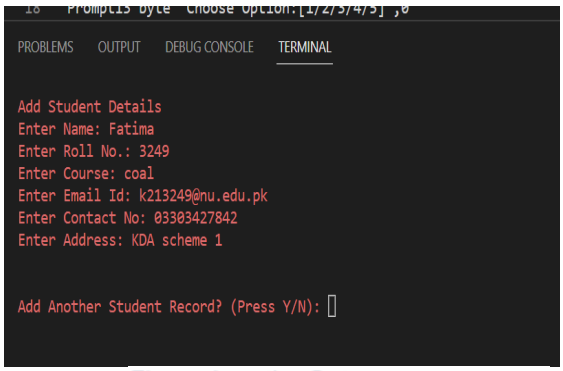


Figure Inserting Data

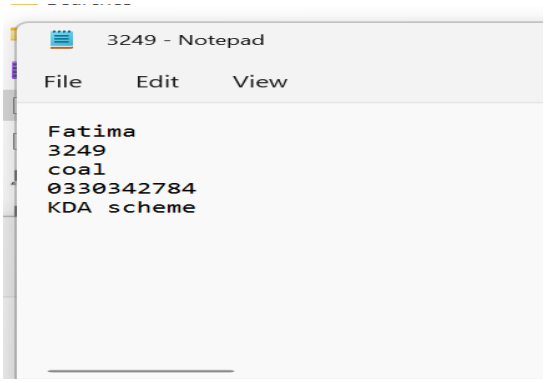
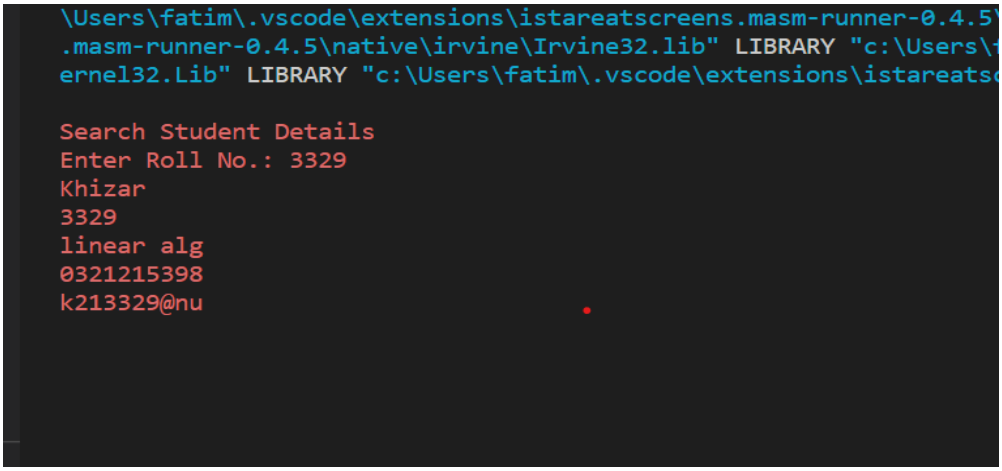


Figure File Display

Search Proc

This method is used to look for student information using their student ID. The student ID is entered by the user, and the file with that ID is then looked for. The file is opened and

read from after it has been located. In the same sequence when data was saved into the file, it is read, stored in buffstr, and then printed out on the terminal.

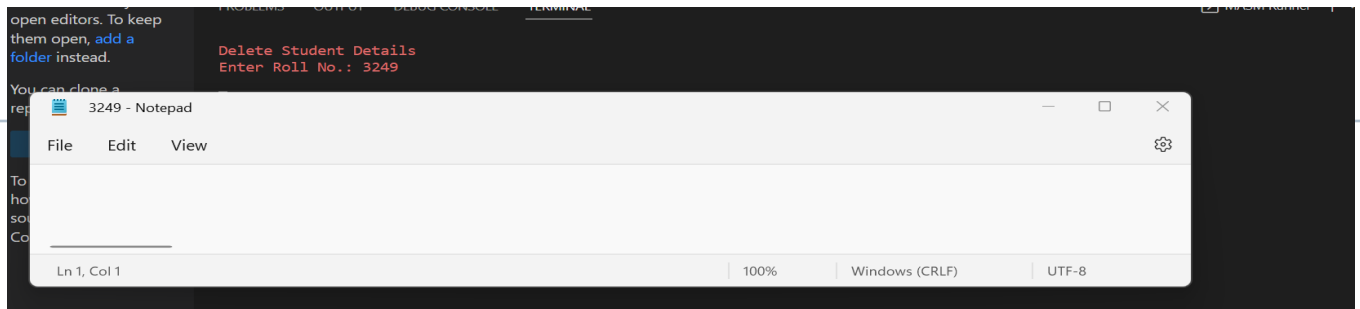


Modify Proc

This procedure is used to change a student's information. In this procedure, the student's file is opened after the roll number is entered and checked against the records of files. The existing file will be overwritten if any details are changed. A new file is created if the modified file roll no. differs from the original.

Delete Proc

In this procedure, record of a student can be deleted by entering the roll no. of that student. Once the roll no. is entered the file is looked for. When the roll no. is found to exist, file ,which was unique to every student, the content of that file gets deleted.



Future Plans

This idea can be developed further by adding features such as: Calculating student grades, number of courses a student has taken and attendance in the respective courses. The code is written in Assembly language, which is a low-level language, so when implementing it in a school system, the system will be more efficient than any other high-level language like c/c++/java etc.