Algorithm:

1. The user is presented with a list of options to choose from.
2. Based on the user input the respective switch-case block is executed.
3. If the user selects Add Record the user will be presented with a screen to input the details of the student.
4. After input the file is opened in write mode and the student details stored in struct are written into the file.
5. The program asks if the user wants to input any more records, if yes, process goes over again and if not, the screen falls back to the original one.
6. Here the user can choose to see all the records.
7. In this case, the file is opened in read only mode.
8. The mapping of the struct is done through the size of the stored structs in the file and a while loop is run until all details are printed.
9. File is then closed after printing.
10. The user goes back to the original screen.
11. Now the user can choose to search a student based on his/her roll no.
12. The File is again opened in read mode.
13. A while loop is run which iterates from 0 to the size of the total structs stored in the file.
14. For each iteration the program checks if the roll no of that struct is the same as the user input or not.
15. If it is the same the details of the student are printed and search successful is displayed.
16. If not found ‘record not found’ is displayed.
17. Now the user can choose to delete a students records based on their roll no.
18. This time a new file temp.txt is formed to stored duplicate data.
19. The original file is opened in read only mode and temp is opened in write mode.
20. The loop iterates through the structs stored in the original file.
21. If the roll no to be deleted doesn't match the data is copied to the temp.txt
22. If the roll is found a flag is returned as 1.
23. After the iteration is over, the program checks if the flag is 1.
24. If the flag is one it deletes the old file and renames the temp.txt same as the original file which does not contain the required record.
25. If the flag is 0 the program returns roll no. not found.
26. The user is returned to the home screen