

QUESTION

Write a C program to keep records and perform statistical analysis for a class of 20 students. The information of each student contains ID, Name, quizzes Scores (2 quizzes per semester), mid-term score, final score, and total score. All the records must be store in the file and you must read the scores <50, <80 and <100 until users selects the end file option.

QUESTION

You're the owner of a hardware store and need to keep an inventory that can tell you what tools you have, how many you have and the cost of each one. Write a program that initializes the file "hardware.txt" to 10 empty records, lets you input the data concerning each tool, enables you to list all your tools, lets you delete a record for a tool that you no longer have and lets you update any information in the file. The tool identification number should be the record number. Use the following information to start your file:

Record #	Tool name	Quantity	Cost
3	Electric sander	7	57.98
17	Hammer	76	11.99
24	Jig saw	21	11.00
39	Lawn mower	3	79.50
56	Power saw	18	99.99
68	Screwdriver	106	6.99
77	Sledge hammer	11	21.50
83	Wrench	34	7.50

QUESTION

Using C, create a file named budge.txt that contains three equal-length columns of numbers, like this:

```
-462.13 486.47 973.79
755.42 843.04 -963.67
442.58 -843.02 -462.86
-233.93 -821.67 399.59
-379.65 -556.37 837.46
55.18 -144.93 -93.15
533.73 804.64 -66.25
-922.12 914.68 -264.67
-600.27 -838.59 747.02
-962.97 49.96 -677.79
```

Now write a program named budget.c that reads this file and adds up the numbers in each column. The program's output should look like this:

Column sums are: -1774.16 -105.79 429.47

QUESTION

Create a structure to store Student data. A student has RollNo, Name, Department, Batch, Section, CGPA. Store the information of N students using **array** and store it into a file. Then access the file to find out the following information:

- Given a user input of "RollNo", print all the data of that student on the screen.
- Loop through the array of students and only print the data of students who are in Batch 2022

QUESTION

Write a C program to read an existing text file, and encrypt it and save the encrypted version in a new file according to the following rules:

1. Each vowel must be replaced by "vow" or "VOW". It should be lowercase if it is the 1st, 3rd, 5th vowel (odd num in the file (odd numbers) and uppercase if 2nd, 4th, 6th etc (even numbers).
2. Every 3 letter sequence of characters containing "s" must be replaced with PF-Lab.
3. After the above changes, use a normal shift cipher and replace every letter in the file with the letter which is 3 letter after. For example, A will be replaced by D, B replaced by E, Z replaced by C and so on.

QUESTION

Take user input for rows and columns. Dynamically allocate memory for the 2D integer array and randomly assign integer values (range -200 -> 200) for each element. Loop through the array and replace every positive integer with the MINIMUM value in the row, and replace every negative integer with the MAXIMUM value in the row. (Note that it should be minimum and maximum according to the original values in the array, not the modified array). You must solve this problem using only one array, do not declare another array.

After each time of doing this entire process, ask the user if they wish to continue or stop the program. In case they wish to continue, you must repeat this process (take new dimensions as input, reallocate the memory) and use the SAME POINTER to create the new array.