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Code:

```
1  #include <stdio.h>
2
3  // Structure to hold student data
4  struct Student {
5      char name[100];
6      int id;
7      int ct1;
8      int ct2;
9      int ct3;
10     int mid;
11     int final;
12     int total;
13 };
14
15 int main() {
16     struct Student students[2];
17     int i;
18     //input for student 1
19     printf("Enter details for student 1:\n");
20     printf("Name: ");
21     scanf("%99s", students[0].name);
22     printf("ID: ");
23     scanf("%d", &students[0].id);
24     printf("CT1 out of 10: ");
25     scanf("%d", &students[0].ct1);
26     printf("CT2 out of 10: ");
27     scanf("%d", &students[0].ct2);
28     printf("CT3 out of 10: ");
29     scanf("%d", &students[0].ct3);
30     printf("MID out of 30: ");
31     scanf("%d", &students[0].mid);
32     printf("FINAL out of 40: ");
33     scanf("%d", &students[0].final);
34
35     // Calculate total for student 1
36     students[0].total = students[0].ct1 + students[0].ct2 + students[0].ct3 + students[0].mid + students[0].final;
37
38     // Input and calculation for student 2
39     printf("Enter details for student 2:\n");
40     printf("Name: ");
41     scanf("%99s", students[1].name);
42     printf("ID: ");
43     scanf("%d", &students[1].id);
44     printf("CT1 out of 10: ");
45     scanf("%d", &students[1].ct1);
46     printf("CT2 out of 10: ");
47     scanf("%d", &students[1].ct2);
48     printf("CT3 out of 10: ");
49     scanf("%d", &students[1].ct3);
50     printf("MID out of 30: ");
51     scanf("%d", &students[1].mid);
52     printf("FINAL out of 40: ");
53     scanf("%d", &students[1].final);
54
55     // Calculate total for student 2
56     students[1].total = students[1].ct1 + students[1].ct2 + students[1].ct3 + students[1].mid + students[1].final;
57
58     // Output the total marks for both students
59     printf("\nTotal marks obtained:\n");
60     for (i = 0; i < 2; i++) {
61         printf("%s (ID: %d): %d out of 100\n", students[i].name, students[i].id, students[i].total);
62     }
63
64     return 0;
65 }
```

Output:

```
G:\aliif\Untitled1.exe
Enter details for student 1:
Name: Md.Rafi
ID: 201001012
CT1 out of 10: 4
CT2 out of 10: 8
CT3 out of 10: 3
MID out of 30: 10
FINAL out of 40: 23
Enter details for student 2:
Name: Sharafat
ID: 231001012
CT1 out of 10: 8
CT2 out of 10: 9
CT3 out of 10: 7
MID out of 30: 27
FINAL out of 40: 35

Total marks obtained:
Md.Rafi (ID: 0): 48 out of 100
Sharafat (ID: 231001012): 86 out of 100

Process returned 0 (0x0)   execution time : 129.993 s
Press any key to continue.
```

Explanation:

First, we have the `#include <stdio.h>` directive at the top, which is used to include the Standard Input Output library in the program. This library is required for the program to use functions such as `printf()` and `scanf()` for input and output operations.

Next is the definition of the Student structure. Structures in C are user-defined data types that allow grouping of variables of different types under a single name for easier and more logical handling. Here's what each member of the Student structure represents: **name**: a character array to store the student's name. It has been allocated 100 characters, which is assumed to be sufficient.

id: an integer to store the student ID.

ct1, ct2, ct3: integers to store the scores of three class tests.

mid: an integer to store the midterm exam score.

final: an integer to store the final exam score.

total: an integer to store the total score, which is the sum of the class tests, midterm, and final exam scores.

In the `main()` function, we:

Declare an array of two Student structures named `students` to store the details for two students. Use `printf` to display prompts to the user and `scanf` to read the user's input for each required detail of the first student. However, there's a bug when reading the ID—it reads the input into `students[1].id` instead of `students[0].id`. Calculate the total score for the first student by adding up the class test, midterm, and final exam scores. Repeat the input and calculation process for the second student. Output the total marks obtained by both students. The loop iterates over the array of students, printing the name, ID, and total score of each student.