

STRUCTURE

1. Write a program a structure, student is created. This structure has three members: name (string), roll (integer) and marks (float). Then, a structure variable s is created to store information and display it on the screen.
2. Write a program takes two distances (in inch-feet system), adds them and displays the result on the screen. (Using Distance Structure)
3. Write a program to Add Two Complex Numbers by Passing Structure to a Function. [A complex number is a number that can be expressed in the form $a + bi$, where a and b are real numbers and i is the imaginary unit]
4. Write a program to Calculate Difference Between Two Time Periods. (Using Structure & pointer)
OUTPUT: TIME DIFFERENCE: 12:34:55 - 8:12:15 = 4:22:40
5. Create a simple structure named Book that holds the following data fields:
i) id (integer) ii) title (String) iii) author (String)
Now create two structure variables of Book type named book1 and book2 set the following information for the books-
For book1 - **id:** 101 **title :** C programming Hand Note **author:** Bala guru swami
For book2 – **id:** 102 **title:** Programming with fun author: Sumita Arora
Finally print all the information of the two books.
6. Write a program to accept and print a student's result using a structure having array inside it
7. The roll numbers ,marks in English ,Computer and Math's out of 100 for 50 students.
Write a function, using structures , to calculate the following :
i) No. of Students Passed with distinction ii) Details of top two students
iii) Number of Students failed
For distinction, a student needs to score at least 75% and minimum passing marks are 40%.
8. Create a structure named Writer with two fields, name(String) and genre(String). Then create an array of Writer named writerRecords. Insert 5 records into array and print the records of the array by iterating the array using loop.
9. Create a structure named TanisBall where we have two fields-color (string) and weight (float).
Now create a pointer variable of structure TanisBall named myBall. Input the field values for myball form user and finally print the information of myball using that pointer variable myball .

STRUCTURE

10. Write a program to store the employee name, id, date of birth, basic salary of an employee. Write a program to store 10 employee details. Display the employee information having highest salary. Sort the employee details according to the basic salary.

11. struct Employee

```
{
    int age;
    char Name[50];
    char Department[20];
    float salary;

    struct address // Declaring the address structure
    {
        int Door_Number;
        char Street_Name[20];
        char City[20];
        int Postcode;
    } add; // creating the address variable = add
};
```

Creating Structure Variable and assign the corresponding values to them (Normal Variable)

Creating Structure Pointer Variable and assign the corresponding values to them (Pointer Variable)

12. Write a Program to accept name , class and marks of 10 students with the use of structure with array of pointer and also print them.

13. Write a program Program to accept name , class and marks with the use of structure with pointer. Also print the grade which is based on the marks-

1. marks ≥ 75 grade-A
2. marks ≥ 50 and < 75 grade-B
3. marks < 50 grade-C

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