

INTRODUCTION

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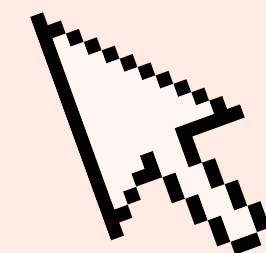


STRUCTURES

**B***I*U

ASSIGNMENT 2

A LOOK AT THE C PROGRAM TO
IMPLEMENT A METHOD THAT RETURNS A
STRUCTURE INCLUDING CALLING THE
METHOD AND USING ITS VALUE



QUESTION

Go to the editor

Test Data : Method that returns a structure :

Input the dimensions of the rectangle :

length : 20

breadth : 40

Expected Output: Perimeter and Area of the rectangle :

Length: 20

Breadth: 40

Perimeter: 120

Area: 800



WHAT ARE STRUCTURES

Structure in C writing computer programs is exceptionally useful in situations where we really want to store comparable information of various elements.

Structure is another client characterized information type accessible in C that permits to join information things of various types.

Structures are utilized to address a record



SYNTAX OF STRUCTURE

```
struct structName
{
    // structure definition
    Data_type1 member_name1;
    Data_type2 member_name2;
    Data_type2 member_name2;
};
```



HOW TO DECLARE STRUCTURE VARIABLES

**1. DECLARATION OF STRUCTURE
VARIABLES WITH STRUCTURE
DEFINITION**

**2. DECLARATION OF STRUCTURE
VARIABLES SEPARATELY**



Function Calling:

A function call is an important part of the C programming language. It is called inside a program whenever it is required to call a function. It is only called by its name in the `main()` function of a program. We can pass the parameters to a function calling in the `main()` function.

THE ACTUAL CODE

```
##include<stdio.h>
#include<math.h>

struct dim{
    int l;
    float b;
    float peri;
    float area;
};

struct dim func(int l,float b) {
    struct dim rect1;
    rect1.l=l;
    rect1.b=b;
    rect1.peri=2*(rect1.l+rect1.b);
    rect1.area=(rect1.l*rect1.b);
    return (rect1) ;
};

int main(){
    int l;
    float b;
    struct dim rect;
    printf("Enter integer length: ");
    scanf("%d", &l);
    printf("Enter float breadth: ");
    scanf("%f", &b);

    rect=func(l,b);
    printf("length: %d\n", rect.l);
    printf("breadth: %f\n", rect.b);
    printf("area: %f\n", rect.area);
    printf("perimeter: %f\n", rect.peri);

    return 0;
}
```


CONCLUSION

For implementing a method that returns a structure including calling the method and using its value through this program we created the method by using user defined structure, variable, void function. It takes data from user and store it into the structure function. Hence we get the desired output.

File

Edit

Format

View

SOURCE

<https://www.programiz.com/c-programming/c-structure-function>



*Thank
you!*