

# Data Structures using C

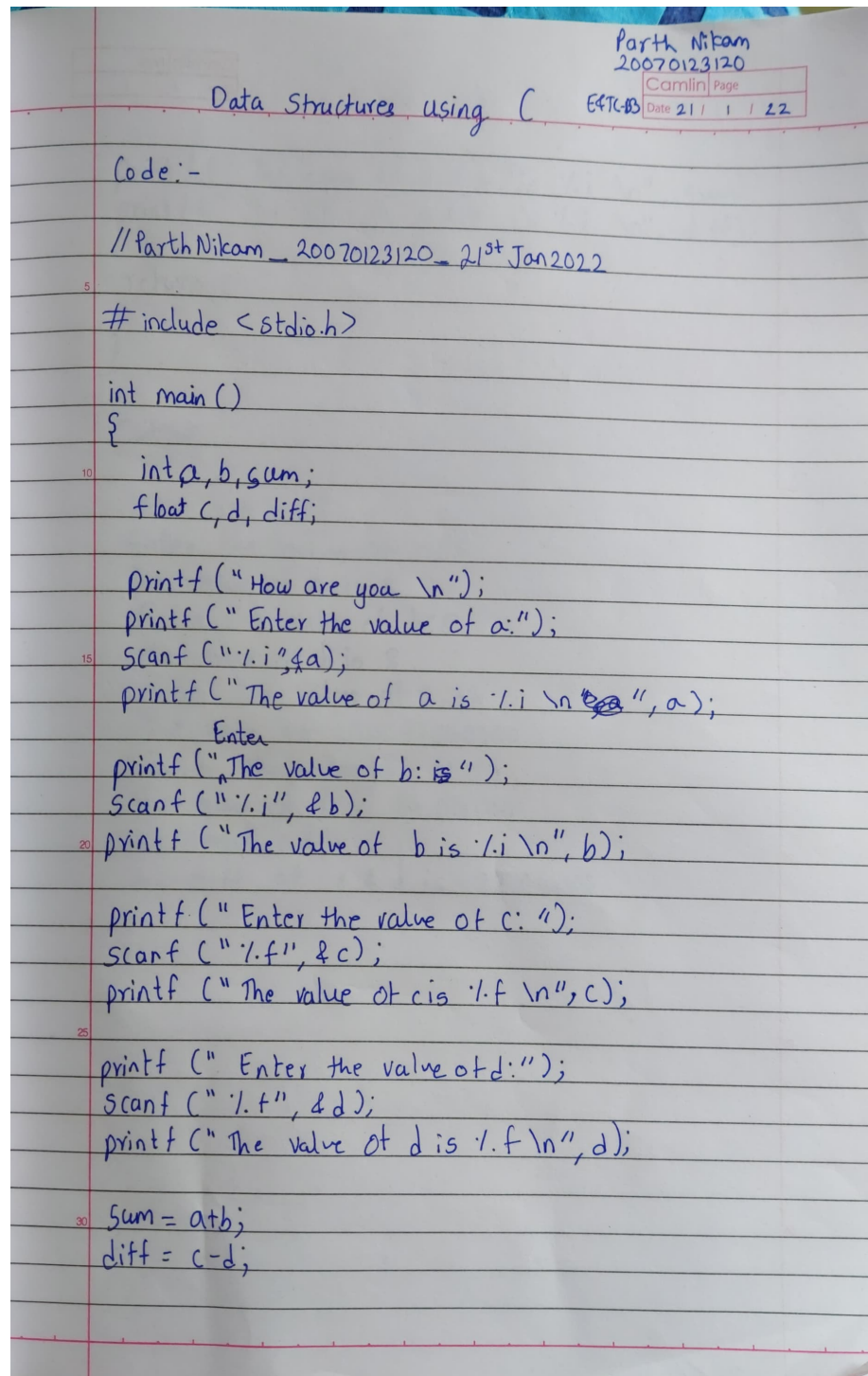
21<sup>st</sup> Jan 2022

Parth Nikam  
20070123120  
E&TC - B3

Aim: - To study Basics of C language.

Objective: - To learn about printf, scanf, add etc.

Code: -



The image shows a handwritten C program on lined paper. At the top right, there is a header section with the name 'Parth Nikam', ID '20070123120', and a table for 'Camlin Page' with 'Date 21 / 1 / 22' and 'E&TC-B3'. The title 'Data Structures using C' is written in the center. The code is written in blue ink and includes comments for the author and date. It declares variables for integers and floats, and uses printf and scanf for input/output. The program calculates the sum of two integers and the difference of two floats.

```
Code:-  
  
// Parth Nikam_20070123120_21st Jan 2022  
  
#include <stdio.h>  
  
int main()  
{  
    int a, b, sum;  
    float c, d, diff;  
  
    printf("How are you \n");  
    printf("Enter the value of a:");  
    scanf("%i", &a);  
    printf("The value of a is %i \n", a);  
    Enter  
    printf("The value of b: ");  
    scanf("%i", &b);  
    printf("The value of b is %i \n", b);  
  
    printf("Enter the value of c: ");  
    scanf("%f", &c);  
    printf("The value of c is %f \n", c);  
  
    printf("Enter the value of d:");  
    scanf("%f", &d);  
    printf("The value of d is %f \n", d);  
  
    sum = a+b;  
    diff = c-d;
```

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```
printf(" The sum of a & b is %.i \n", sum);  
printf(" The diff of c & d is %.i \n", diff);  
  
return 0;
```

```
}
```

## Output

```
How are you?  
Enter the value of a: 6  
The value of a is 6  
Enter the value of b: 8  
The value of b is 8  
Enter the value of c: 32  
The value of c is 32.000000  
Enter the value of d: 54  
The value of d is 54.000000  
The sum of a & b is 14  
The diff of c & d is -22.000000
```

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Screenshot: -

The screenshot displays a C program in a code editor. The source code is as follows:

```
1 //Parth Nikam PRN:- 20070123120 Date - 21st Jan 2022
2 #include <stdio.h>
3 int main()
4 {
5     int a, b, sum;
6     float c, d, diff;
7     printf("How are you? \n");
8     printf("Enter the value of a: ");
9     scanf("%i", &a);
10    printf("The value of a is %i \n", a);
11
12    printf("Enter the value of b: ");
13    scanf("%i", &b);
14    printf("The value of a is %i \n", b);
15
16    printf("Enter the value of c: ");
17    scanf("%f", &c);
18    printf("The value of a is %f \n", c);
19
20    printf("Enter the value of d: ");
21    scanf("%f", &d);
22    printf("The value of a is %f \n", d);
23
24    sum = a + b;
25    printf("The sum of a and b is %i \n", sum);
26
27    diff = c - d;
28    printf("The diff of c and d is %f \n", diff);
29    return a;
30 }
```

The output window shows the following execution results:

```
How are you?
Enter the value of a: 6
The value of a is 6
Enter the value of b: 8
The value of a is 8
Enter the value of c: 32
The value of a is 32.000000
Enter the value of d: 54
The value of a is 54.000000
The sum of a and b is 14
The diff of c and d is -22.000000
Program ended with exit code: 0
```

The IDE settings panel on the right includes the following details:

- Identity and Type:** Name: main.c, Type: Default - C Source, Location: Relative to Group, Full Path: /Users/parthnikam/Documents/Parth/DSC/21.122/print/print/main.c
- On Demand Resource Tags:** Only resources are taggable
- Target Membership:** print (checked)
- Text Settings:** Text Encoding: No Explicit Encoding, Line Endings: No Explicit Line Endings, Indent Using: Spaces, Widths: Tab (4), Indent (4), Wrap lines (checked)

Result: - Basics of C language is studied successfully.