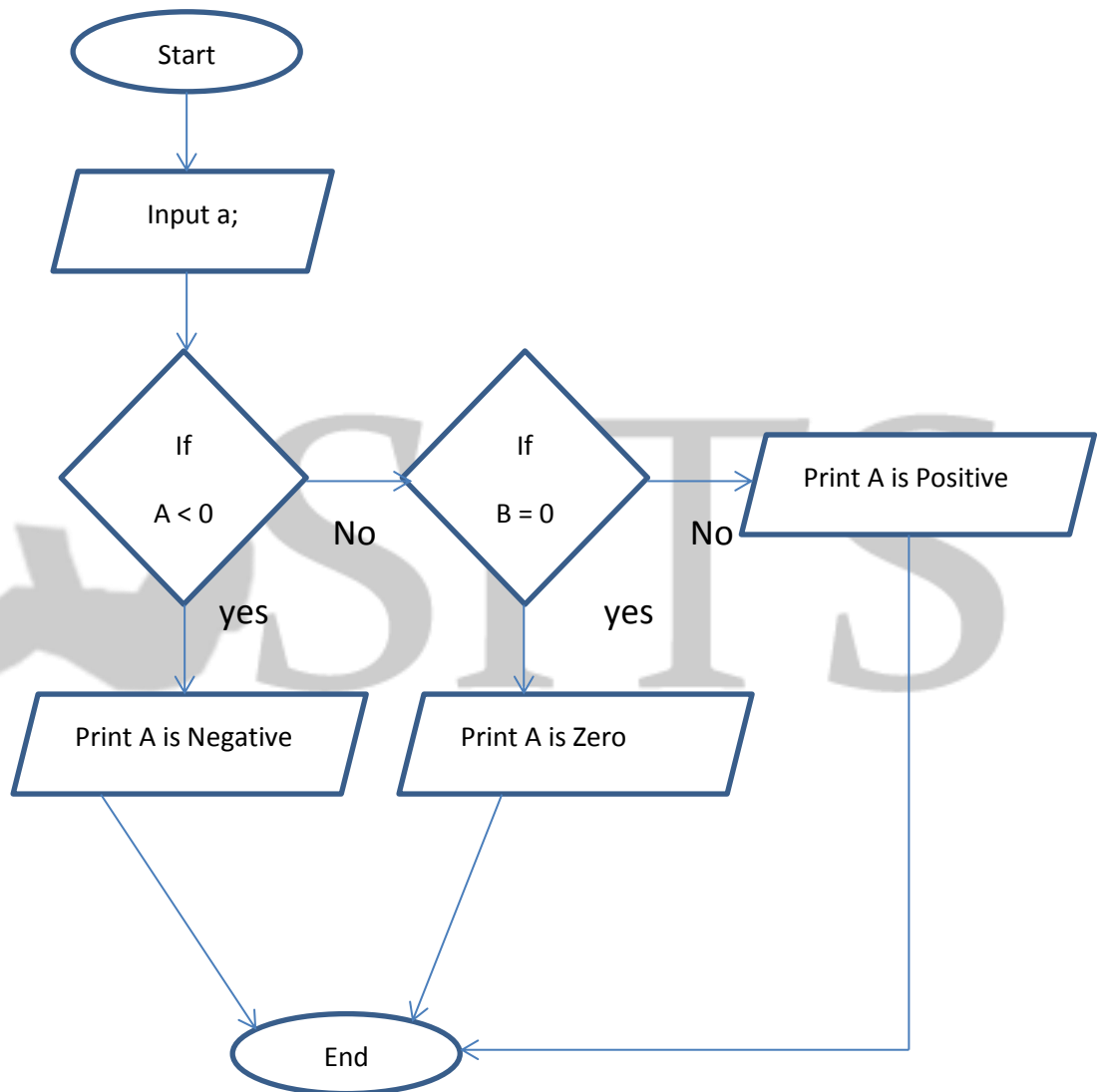


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- 1 Write an algorithm and flowchart to find out whether a given integer is zero, positive, negative and explain it.

Ans:



Explain yourself

- 2 What are the basic four data types use in C programming? What are its size and range? Explain.

Ans:

The four types of datatypes used in C programming are:

Data type	Size	Range
1. Int	2 byte	-32768 to 32767
2. Char	1 byte	-128 to 127
3. Float	4 byte	3.4e - 38 to 3.4e + 38
4. Double	8 byte	1.7e - 308 to 1.7e + 308

Int : They are the basic integer valued data types. They take simple numbers containing no decimal points in them.

Float : They are the longer range data types that are also capable of taking decimal point values.

Char : They are the character storing data types who stores a character within a name specified.

Double : Doubles are the data types who stores a longer range of number.

3 Explain the "if...else" statement with example.

Ans:

Ifelse :-

Ifelse statement are the looping statement that checks the condition and proceeds forward the logics. The if statements is run only if the condition in if is TRUE Otherwise the else statement is run.

Example :

```
#include<stdio.h>

Void main()
{
    Int a, b;
    Printf(" Enter two no's ");
    Scanf ( "%d %d " , &a , &b);
    If (a<b)
    {
        Printf ( "a is larger");
    }
    else
    {
```

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```

    Printf("b is larger");
}
}

```

4 Differentiate between break and exit statement with example.

Ans:

Break	Exit
1. break is used to exit from the loop	1. exit is used to exit from the program
2. break() is not a function, it is part of the language syntax.	2. exit() is a function
3. break is a keyword that <i>exits</i> the <i>current</i> construct like loops	3. exit is a non-returning function that returns the control to the operating system
4. break is a control flow statement of the language. It says that next statement to be executed is the one at the end of the loop (or at the end of the switch statement)	4. exit(), instead, is a function that says that the program must end and control must be given back to the operating system

5 Explain the multidimensional array with example. Write a program to convert a lowercase character string to uppercase?

Ans:

Multidimensional array :

Often there is a need to store and manipulate two dimensional data structure such as matrices and tables. Here the array has two subscripts one subscript denotes the row and the other denotes the column. The declaration of two dimensional array as follows.

```
Data_type array_name[row size] [column size];
```

```
Int m [20] [10];
```

Example:

```
Int table [2] [3] ={0,0,0,1,1,1}
```

0	0	0
1	1	1

Program to convert lowercase string to uppercase :

```

#include<stdio.h>
#include<string.h>
#include<conio.h>

```

```

Void main()
{
    Char str [25];
    Int len ;
    Clrscr ();
    Printf (“ enter the string \n: ”);
    Gets(str);
    Strupr(str)
    Printf (“ \n your string in uppercase %s ”, str);
}

```

6 Explain the library functions with example.

Ans:

The C language is accompanied by a number of standard library functions for various useful tasks. In particular all input and output operation and all math operations are implemented by library functions. Header file is required to use library functions.

Types of library functions:

- a. Built in library functions
- b. User defined library functions

Example:

```

#include <stdio.h>
Void main()
{
    Display();
}
Void display()
{
    Printf(“my name is ram bahadur kanshakar”);
}

```

Output: my name is ram bahadur kanshakar

7 Write a program to find the sum of all the elements of an array using pointers.

Ans

```
#include<stdio.h>
#include<conio.h>
Void main()

{
    Int sum = 0;
    Int * array ;
    Int i;
    Printf ("enter 10 value:");
    For (i=0;i<10;i++)

    {

        scanf("%d",*(a+i)

    }

    For(int j=0;j<10;j++)
    {
        Sum = sum + *(a+j);
    }

    Printf (" sum = %d",sum);

    Getch();

}
```

8 Explain the pointer arithmetic with example.

Ans:

Pointer arithmetic :

C allows us to add integer or subtract integer from pointer as well as to subtract one pointer from the other. We can also compare pointer by using the relational operators.

Example :

```
#include<stdio.h>

Void main()

{

    Int *ptr1, *ptr2;

    Int a , b , x , y , z;
```

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```

A=30;

B=60;

Ptr1 = &a;

Ptr2 = &b;

X=*ptr1 + *ptr2 - 6;

Printf("value of x =%d",x)

}

```

- 9 Explain the array of structures and write a program to accept record of 15 persons which has name, age and address and also display them.**

Ans:

Array of structure:

It is possible to define array of structure for example if we are maintain information of all the students in the college and if 100 students are studying in the college we need to use an array then single variables. We can define an array of structure as shown in the following example

```

Structure information
{
    Int id;
    Char name [20];
    Char address [20];
    Int age ;
}

Student[100];

```

Program :

```

#include<stdio.h>

#include<conio.h>

Structure student
{
    Char name [20];
    Int age;
}

```

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```

    Char address [25];
}

    S1 [15];

    Void main()
{

    Int i , j;

    Printf ("enter name , age and address of 15 people ");

    For (i=0;i<15;i++)

    {

        Scanf(" %s %d %s" , s1[i].name , s1[i].age , s1[i].address");

    }

    Printf (" details you entered =");

    For (j=0;j<15;j++)

    {

        Printf(" %s %d %s" , s1[j].name,s1[j].age,s1[j].address);

    }

}

```

10 What are the three types of input/output functions which support in C-programming? Explain with example.

Ans:

The three types of i/o functions which support in C- programming are

- a) Basic i/o functions
- b) Formatted i/o functions
- c) Non – formatted i/o function

EXPLAIN

(OR)

Write short note on:

- a) Delimiters**
- b) Graphics function**

Delimiters:

A delimiters is a sequence of one or more characters used to specify the boundry between separate independent region in plain text or other data strings. An example of delimiters is the comma character which act as field delimiter in a sequesnce of comma separated values.

Graphic function:

Graphic functions in C is used to implemented various graphical symbols and shape in C . There are various types of C – graphic function used , such as

- Put pixel (x , y , color)

It helps to put a dot (pixel) at the position x,y.

- Line (x1 , y1 , x2 , y2)

Its function is to draw line from (x1 , y1) to (x2 , y2)

- Circle (x , y , r) etc.

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