ASSIGNMENT 6

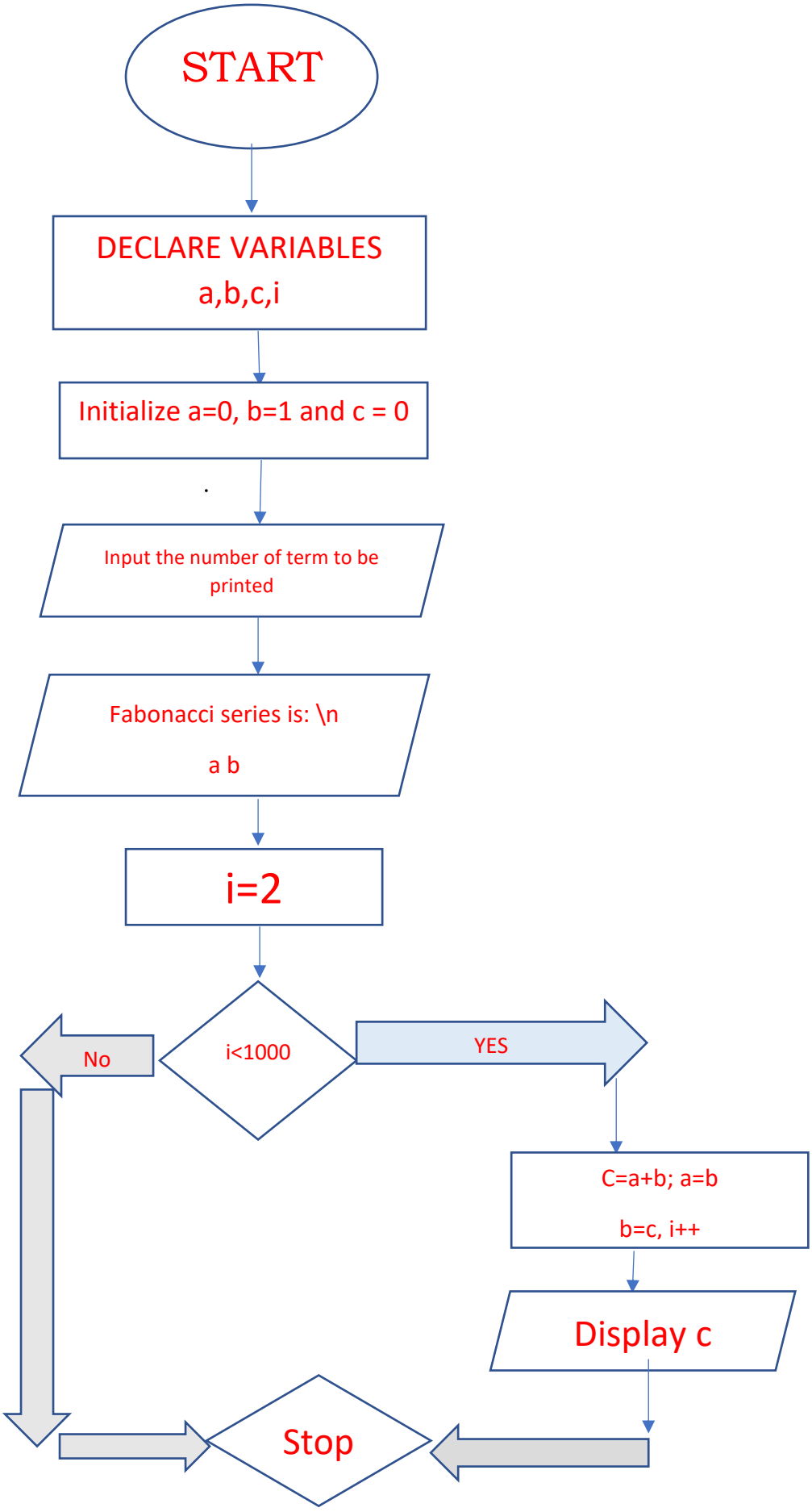
AIM-

Write a C program to print Fibonacci series up to n terms(for loop)

ALGORITHM

1. Start
2. Declare variables a,b,n,i
3. Print the statement which asks user to enter terms of Finonacci series and use scanf for the user to input the terms
4. Initialize variables a=0, b=1
5. If i<n, which satisfies condition n=1000
6. Display Fibonacci series till terms <=1000
7. Display value of c when
8. a=b
9. b=n
10. n=a+b
11. increase value of i each time by 1
12. End

FLOWCHART


START
DECLARE VARIABLES
a,b,c,i
Initialize a=0, b=1 and c = 0
Input the number of term to be printed
Fabonacci series is: \n
a b
i=2
i<1000
No
YES
C=a+b; a=b
b=c, i++
Display c
Stop

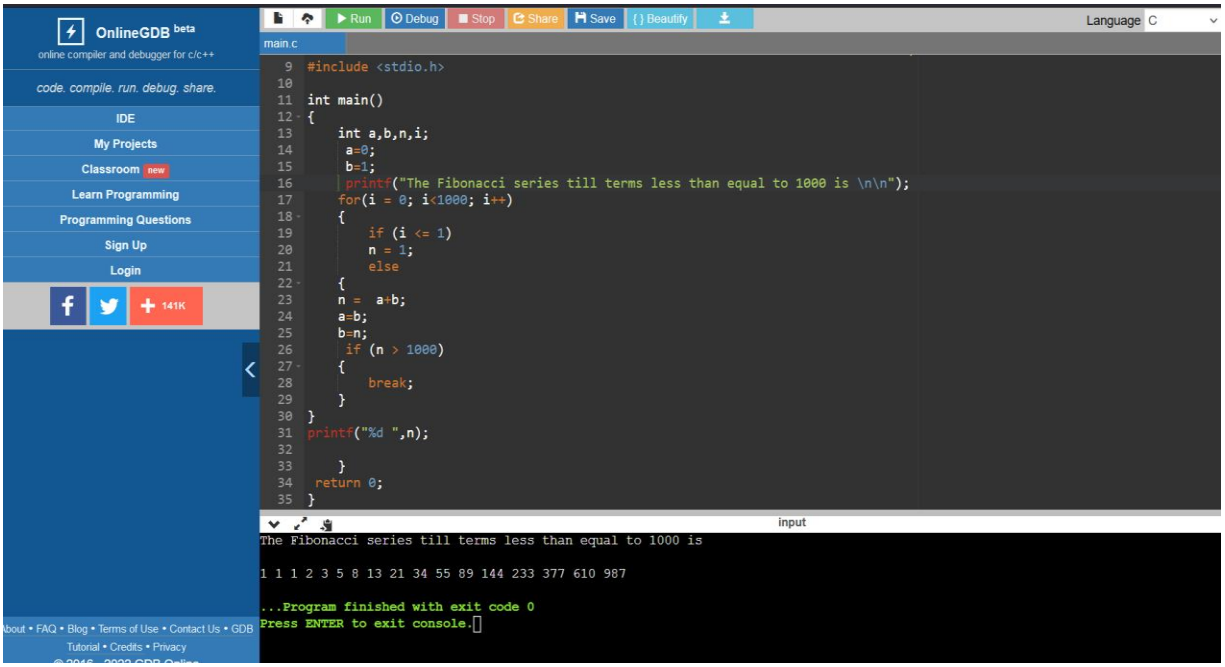
Program

```
#include <stdio.h>

int main()
{
    int a,b,n,i;
     a=0;
     b=1;
     printf("The Fibonacci series till terms less than
equal to 1000 is \n\n");
    for(i = 0; i<1000; i++)
    {
        if (i <= 1)
        n = 1;
        else
    {
    n =  a+b;
    a=b;
    b=n;
     if (n > 1000)
    {
        break;
    }
}
printf("%d ",n);

    }
 return 0;
}
```

Output



Conclusion

Thus we have successfully written the C program to print Fibonacci Series using for loop. In this program we have used variable a,b,n,i to store the value and variable. In this we have used for loop. Also, used ‘scanf’ to get input from user. Also, used ‘printf’ built-in function to display ‘ Number of terms and Fibonacci Terms greater than or equal to 1000’ result on screen. We have successfully executed code on online C compiler

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