Practical-4.(d)

Aim: Write a C++ program to generate Fibonacci Series by using Constructor to initialize the Data Members.

Algorithm:(i)Start

(ii)class (class_name)

(iii)Formula

(iv)Print the result

(v) Stop

Theory: In case of fibonacci series, next number is the sum of previous two numbers for example 0, 1, 1, 2, 3, 5, 8, 13, 21 etc. The first two numbers of fibonacci series are 0 and 1.

Input:

```
#include <iostream>
class fibonacci
{
   long int a,b;
   public:
   fibonacci()
   {
```

```
        a=-1;
        b=1;
    }
    void fibseries(int n)
    {
        int i,next;
        std::cout<<"\nResultant fibonacci series";
        std::cout<<"\n--------------------------------\n";
        for(i=0;i<n;i++)
        {
            next=a+b;
            std::cout<<next<<std::endl;
            a=b;
            b=next;
        }
    }
};
int main(){
    std::cout<<"08_Rabin Nadar";
```

```
    fibonacci f;
    int n;
    std::cout<<"\nFibonacci series\n";
    std::cout<<"\nEnter the range= ";
    std::cin>>n;
    f.fibseries(n);
    return 0;
}
```

Output:

Output Clear

```
/tmp/xxyheVlCuC.o
08_Rabin Nadar
Fibonacci series

Enter the range= 5
Resultant fibonacci series
-----------------------------------
0
1
1
2
3
```