

Experiment Number:1.2

Student Name: Alasso	UID:
Branch: CSE-AML	Section & Group:
Semester: 3	Date: 29/08/2022
Course Name: Programming in JAVA	Course Code: 21CSH-244

1. Aim/Overview of the practical:

The Fibonacci sequence is defined by the following rule. The first 2 values in the sequence are 1,1. Every subsequent value is the sum of the 2 values preceding it. Write a Java program that uses both recursive and non- recursive function to print the n^{th} value of the Fibonacci sequence.

2. Task to be done:

Take the length of the series as input and then print the series using for loop.

3. Algorithm:

Step: 1. Start

Step: 2. Declare four variables int c,n,a=1,b=0.

Step:3. Take the length as input from user.

Step:4. Now print the series using for loop.

Step:5. Stop

4. Code (For Programming)

```
import java.util.Scanner;
class Fab{
    public static void main(String[]args){
        Scanner input = new Scanner(System.in);
        int c,n,a=1,b=0;
        System.out.println("Enter the length of series");
        n=input.nextInt();
        System.out.print(b+" "+a+" ");
        for(int i=0;i<n-2;i++){
            c=a;
            a=a+b;
            b=c;
            System.out.print(" " +a + " ");
        }
    }
}
```

5. Result/Output/Writing Summary:

```
PS D:\java> & 'C:\Program Files\Java\jdk-9.0.4\bin\java.exe' -Xmx1024m -Xms1024m -DpData\Roaming\Code\User\workspaceStorage
Enter the length of series
5
0 1 1 2 3
PS D:\java> 
```

Learning outcomes (What I have learnt):

1. Learnt about Fibonacci series.
2. Learnt about loops in java.

Evaluation Grid (To be created as per the SOP and Assessment guidelines by the faculty):

Sr. No.	Parameters	Marks Obtained	Maximum Marks
1.			
2.			
3.			