

# Bahria University,

## Karachi Campus



### LAB EXPERIMENT NO.

## 7

### LIST OF TASKS

TASK NO	OBJECTIVE
1	Fibonacci series ( 0,1,1,2,3,5,8...) for and while loop
2	Repeatedly print the value of the variable xValue, decreasing it by 0.5 each time, as long as xValue remains positive. (while loop)
3	Print the square roots of the first 25 odd positive integers. (while loop)

### Submitted On:

01 December, 2021

(Date: DD/MM/YY)

**Task 1:** Print Fibonacci series (0,1,1,2,3,5,8...) using for and while loop

## USING FOR LOOP

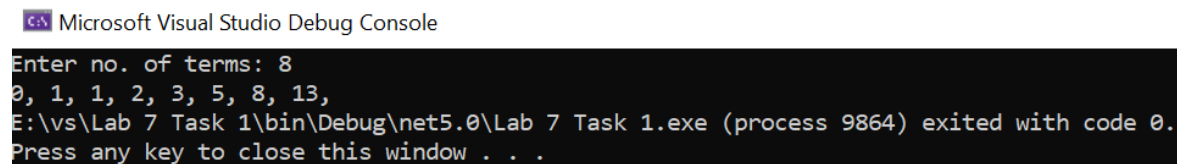
Solution:

```
using System;

namespace Lab_7_Task_1
{
    class Program
    {
        static void Main(string[] args)
        {
            int a = 0, b = 1, n,t;
            Console.Write("Enter no. of terms: ");
            t = int.Parse(Console.ReadLine());
            Console.Write("{0}, {1}, ",a,b);

            for (int i=2; i < t;i++)
            {
                n = a + b;
                a = b;
                b = n;
                Console.Write("{0}, ",n);
            }
        }
    }
}
```

Output:



Microsoft Visual Studio Debug Console

```
Enter no. of terms: 8
0, 1, 1, 2, 3, 5, 8, 13,
E:\vs\Lab 7 Task 1\bin\Debug\net5.0\Lab 7 Task 1.exe (process 9864) exited with code 0.
Press any key to close this window . . .
```

## USING WHILE LOOP

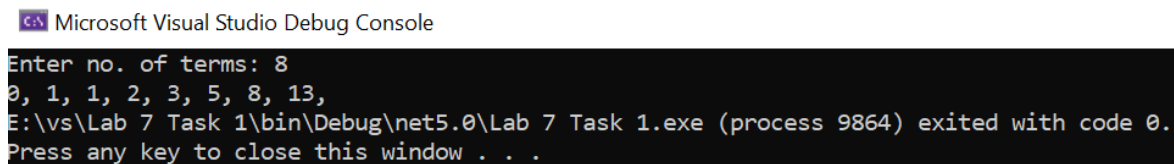
Solution:

```
using System;

namespace Lab_7_Task_1
{
    class Program
    {
        static void Main(string[] args)
        {
            int a = 0, b = 1, n,t,i=2;
            Console.Write("Enter no. of terms: ");
            t = int.Parse(Console.ReadLine());
            Console.Write("{0}, {1}, ",a,b);

            while (i < t)
            {
                n = a + b;
                a = b;
                b = n;
                Console.Write("{0}, ",n);
                i++;
            }
        }
    }
}
```

Output:



Microsoft Visual Studio Debug Console

```
Enter no. of terms: 8
0, 1, 1, 2, 3, 5, 8, 13,
E:\vs\Lab 7 Task 1\bin\Debug\net5.0\Lab 7 Task 1.exe (process 9864) exited with code 0.
Press any key to close this window . . .
```

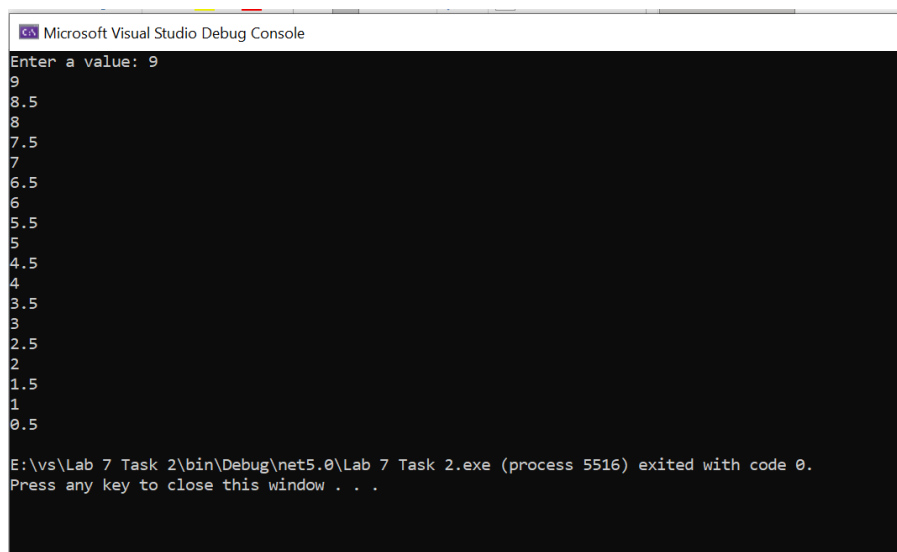
**Task 2:** Repeatedly print the value of the variable value of x, decreasing it by 0.5 each time, as long as value of x remains positive using while loop.

**Solution:**

```
using System;

namespace Lab_7_Task_2
{
    class Program
    {
        static void Main(string[] args)
        {
            double i;
            Console.Write("Enter a value: ");
            i = Convert.ToDouble(Console.ReadLine());
            while(i>0)
            {
                Console.WriteLine(i);
                i -= 0.5;
            }
        }
    }
}
```

**Solution:**



```
Microsoft Visual Studio Debug Console
Enter a value: 9
9
8.5
8
7.5
7
6.5
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
0.5

E:\vs\Lab 7 Task 2\bin\Debug\net5.0\Lab 7 Task 2.exe (process 5516) exited with code 0.
Press any key to close this window . . .
```

**Task 3:** Print the square roots of the first 25 odd positive integers using while loop.

**Solution:**

```
using System;

namespace ConsoleApp4
{
    class Program
    {
        static void Main(string[] args)
        {
            int i = 1,x;
            Console.Write("Enter no. of terms: ");
            x = int.Parse(Console.ReadLine());
            Console.WriteLine("_____");
            while(i<2*x)
            {
                Console.WriteLine("Square root of {0} is {1:0.00}",i,Math.Sqrt(i));
                i+=2;
            }
            Console.WriteLine("_____");
        }
    }
}
```

**Output:**

```
Microsoft Visual Studio Debug Console
Enter no. of terms: 8
Square root of 1 is 1.00
Square root of 3 is 1.73
Square root of 5 is 2.24
Square root of 7 is 2.65
Square root of 9 is 3.00
Square root of 11 is 3.32
Square root of 13 is 3.61
Square root of 15 is 3.87

E:\vs\ConsoleApp4\bin\Debug\net5.0\ConsoleApp4.exe (process 3020) exited with code 0.
Press any key to close this window . . .
```