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:

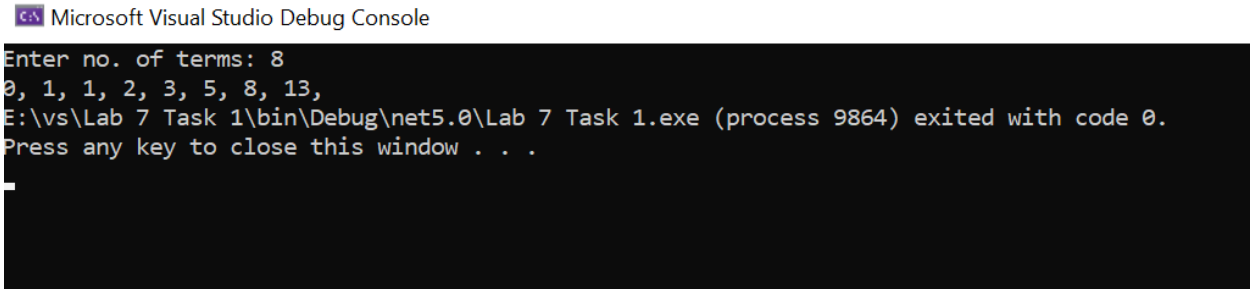
```
using System;

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:



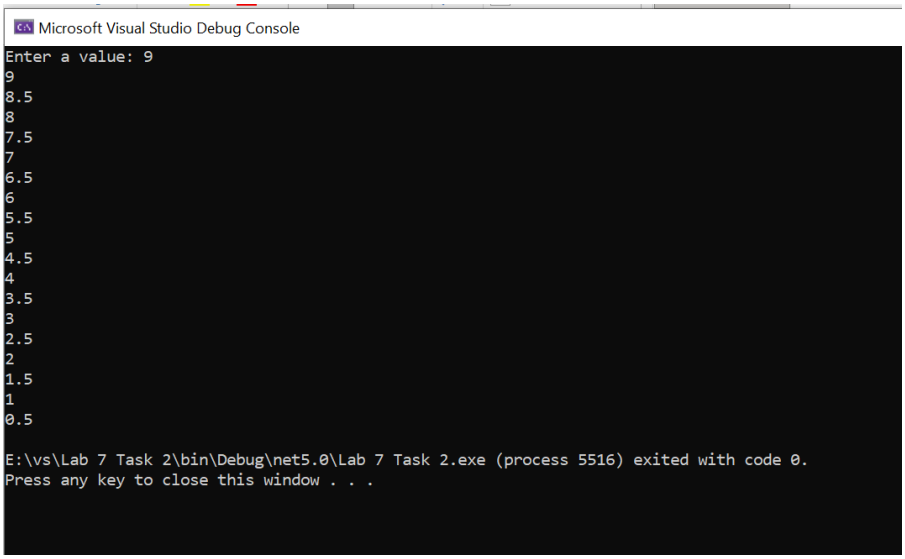
Task 2: Repeatedly print the value of the variable value of x, decreasing it by 0.5 each time, as long as value of x remains positive using while loop.

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:



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: