NATIONAL UNIVERSITY OF SCIENCES & TECHNOLOGY

SCHOOL OF MECHANICAL AND MANUFACTURING ENGINEERING

SEMESTER # 01

CLASS: - ME 15 [SEC A]

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Fundamentals of Programming

LAB MANUAL 06

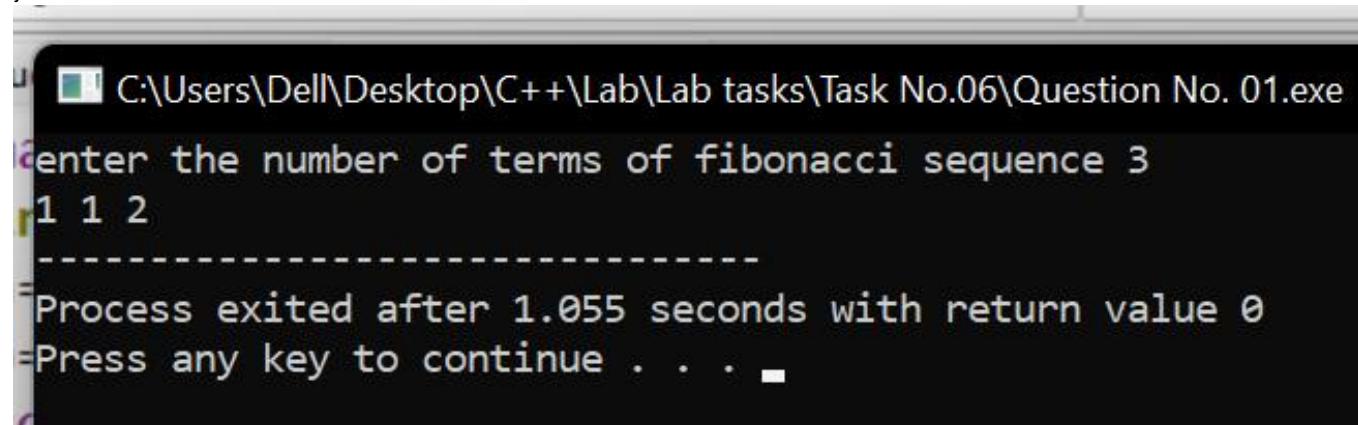## Date of Submission   29 NOV 2023

Submitted to   MUHAMMAD AFFAN

QUESTION NUMBER 01

> **Generate the Fibonacci sequence using nested loops.**

```cpp
/*_____
Generate the Fibonacci sequence using nested loops.
LAB MANUAL 6 Q#01
KASHIF NADEEM KAYANI              456466              ME-15 SEC A
*/

#include<iostream>
using namespace std;
int main (){
        int a,b,n;      //   declaring 3 variables
        a=1;            //assigning value a=0.
        b=1;            //assigning value b=1.
        cout<<"enter the number of terms of fibonacci sequence ";
        cin>>n;
                cout<<a<<" "<<b<<" ";          //printing a and b
        for ( int i=1;i<n;i++)        //using for loop for i
        {
                for( int j=1;j<i;j++)     //using for loop for j.
                {
        int res=0;        //declaring res as a=b.
          res=a+b;
        cout<<res<<" ";     ///printing result [a=b].

        a=b;b=res;     //rotating variable b and res.
        }


} return 0;
}
```

```
C:\Users\Dell\Desktop\C++\Lab\Lab tasks\Task No.06\Question No. 01.exe

enter the number of terms of fibonacci sequence 3
1 1 2
--------------------------------
Process exited after 1.055 seconds with return value 0
Press any key to continue . . .
```

```cpp
/*_____
Generate the Fibonacci sequence using nested loops.
LAB MANUAL 6 Q#01
KASHIF NADEEM KAYANI                456466                ME-15 SEC A
*/

#include<iostream>
using namespace std;
int main (){
    int a,b,n;      //  declaring 3 variables
    a=1;          //assigning value a=0.
    b=1;          //assigning value b=1.
    cout<<"enter the number of terms of fibonacci sequence ";
    cin>>n;
        cout<<a<<" "<<b<<" ";        //printing a and b
    for ( int i=1;i<n;i++)      //using for loop for i
    {
        for( int j=1;j<i;j++)    //using for loop for j.
        {
    int res=0;        //declaring res as a=b.
     res=a+b;
    cout<<res<<" ";    ///printing result [a=b].

    a=b;b=res;    //rotating variable b and res.
    }


} return 0;
}
```

QUESTION NUMBER 02

```cpp
/*_____
  Create Floyd's Triangle with nested loops.
LAB MANUAL 6 Q#02
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*/
#include<iostream>
using namespace std;
int main()
{
        int n;   //declaring number of rows
        cin>>n;     //input from user
        int sum=1;      //declarong a variable sum.
        for (int i=1;i<=n;i++)      //using for loop for i
        {

                for( int j=1; j<=i;j++ )     //using for loop for j.
{

     cout<<sum<<" ";       //printing sum
    sum++;
     }    cout<<endl;     //going to next line
     }
     return 0;
}
```

```
5
1
2 3
4 5 6
7 8 9 10
11 12 13 14 15

---------------------------------
Process exited after 2.758 seconds with return value 0
Press any key to continue . . .
```