Computer Systems & Programming

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Lab Tasks of Lab Manual 4

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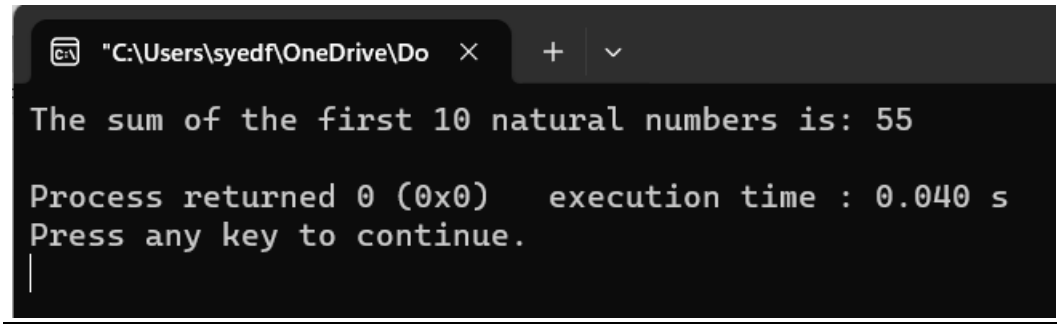
Lab Task# 1: Write a program in C++ to find the sum of first 10 natural numbers.

Code:

```
#include<iostream>
using namespace std;
int main() {
int a = 0;
for (int b = 1;
b <= 10;
b++);
{
   a += b;
}

std::cout << "The sum of the first 10 natural numbers is: " << a << std::endl;
return 0;
}
```

Result:

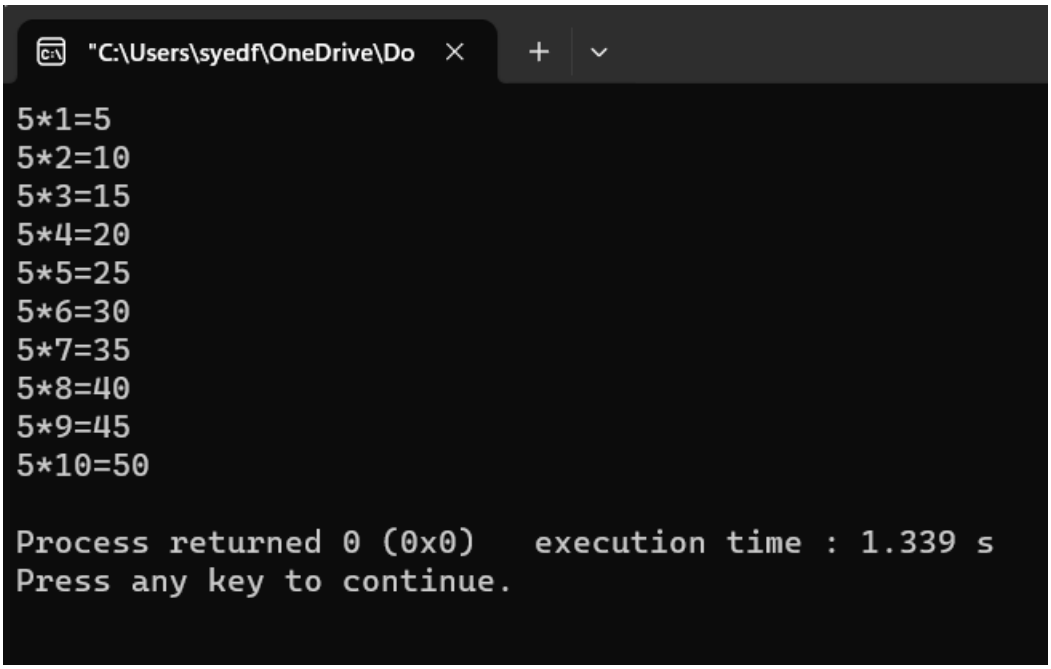


Lab Task# 2: Write a C++ program to Print a Table of any Number.

Code:

```
#include <iostream>
using namespace std;
int main(){
for(int i=1 ; i<=10 ; i++){
cout<<"5*"<<i<<"="<<5*i<<endl;
}
return 0;
}
```

Result:

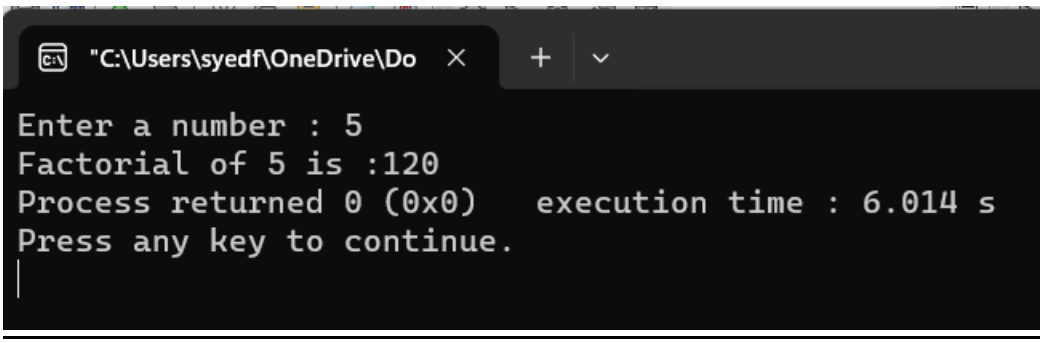


Lab Task# 3: Write a Program to Generate Factorial. A Certain Number
Factorial of any number is the product of an integer and all the integers below it for example factorial of 4 is: 4! = 4 * 3 * 2 * 1 = 24

Code:

```
#include<iostream>
using namespace std;
int main() {
int n, x=1 ;
cout<<"Enter a number : ";
cin>>n;
for(int a=1; a<=n ; a++)
{
   x=x*a ;
}
cout<<"Factorial of "<<n<<" is :"<<x;
return 0;
}
```

Result:

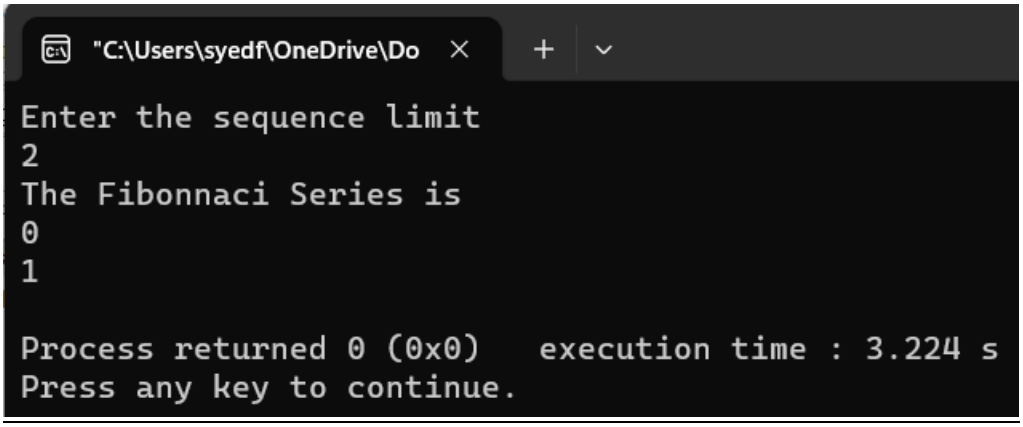


Lab Task# 4: Write a C++ program to generate a Fibonacci sequence up to a certain number input by the user.

Code:

```
#include<iostream>
using namespace std;
int main()
{
int num1=0;
int num2=1;
int root;
cout<<"Enter the sequence limit"<<endl;
cin>>root;
int answer;
cout<<"The Fibonnaci Series is" << endl;
cout<<num1<<" "<<endl;
cout<<num2<<" "<<endl;
for(int i=0; i< root, i++;)
{
answer=num1+num2;
num1=num2;
num2=answer;
cout<<answer<<endl;
}
return 0;
}
```

Answer ;


"C:\Users\syedf\OneDrive\Do
Enter the sequence limit
2
The Fibonnaci Series is
0
1
Process returned 0 (0x0)   execution time : 3.224 s
Press any key to continue.