NATIONAL UNIVERSITY OF SCIENCES AND TEHNOLOGY

CS-114-FUNDAMENTAL OF PROGRAMING

LAB MANUAL # 4

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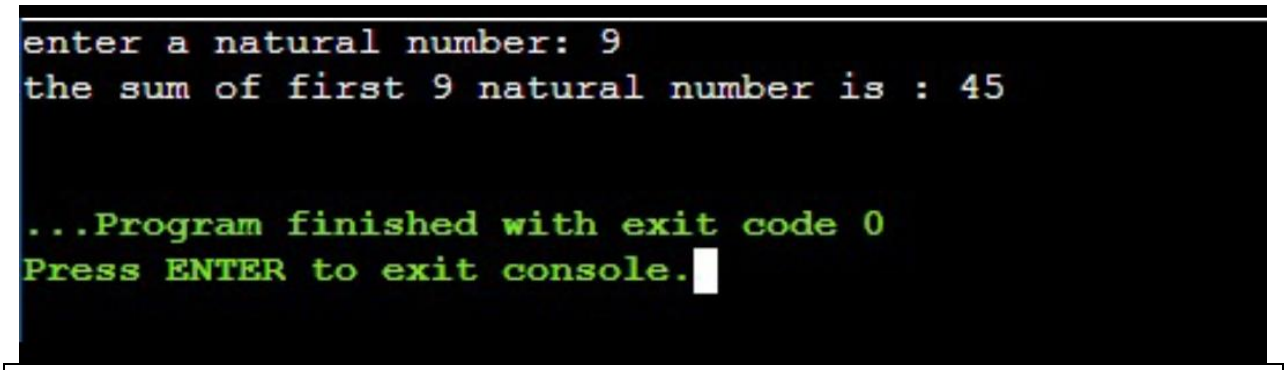
TASK # 1

CODE:

```
#include <iostream>

Using namespace std ;

Int main(){

   Int n,sum=0;

   Int i=1;

   Cout<<"enter a natural number: ";

   Cin>>n;

   While(i<=n){

      Sum=sum+I;

      I++;

   }

   Cout<<"the sum of first "<<n<<" natural number is : "<<sum<<endl;

   Return 0;

}
```

RESULT:

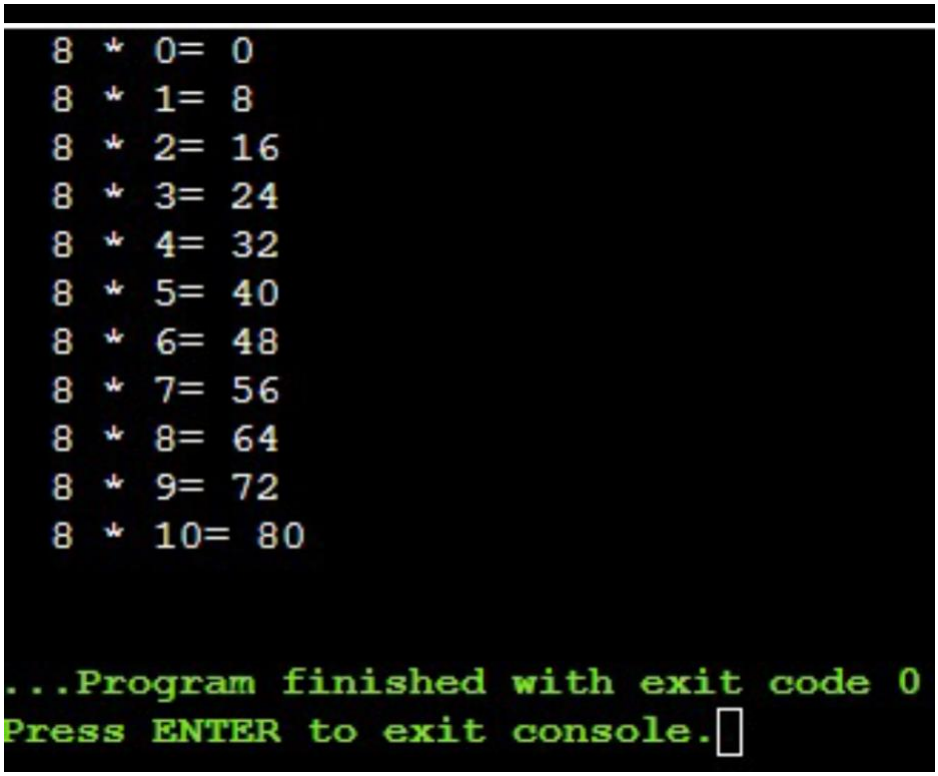


TASK # 2

CODE:

```
#include <iostream>

Using namespace std;

Int main(){

   Int i=0;

   Int table=8,multiply;

   While(i<=10){

      Cout<<"  8 * "<<i<<"= "<<table*i<<endl;

      I++;

   }

   Return 0;

}
```

RESULT:



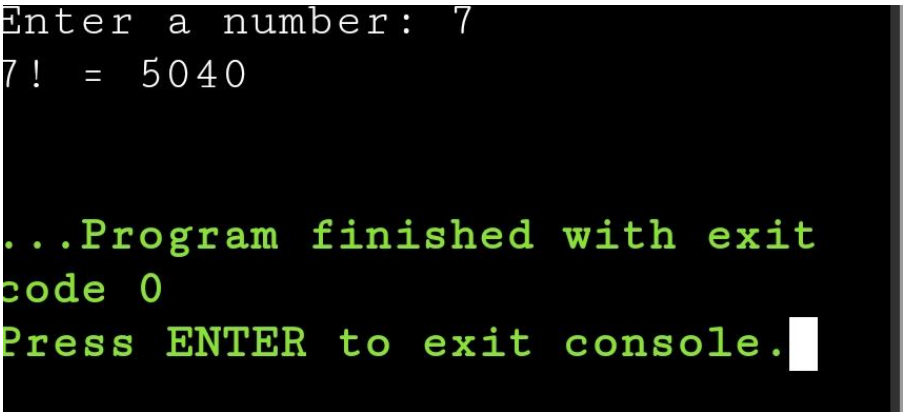
TASK # 3

CODE:

```
#include <iostream>


Int factorial(int n) {
    If (n == 0) {
        Return 1;
    } else {
        Int result = 0;
        For (int I = 1; I <= n; i++) {
            Result *= I;
        }
        Return result;
    }
}


Int main() {
    Int number;
    Std::cout << “Enter a number: “;
    Std::cin >> number;


    Int result = factorial(number);
    Std::cout << number << “! = “ << result << std::endl;


    Return 0;
```

}

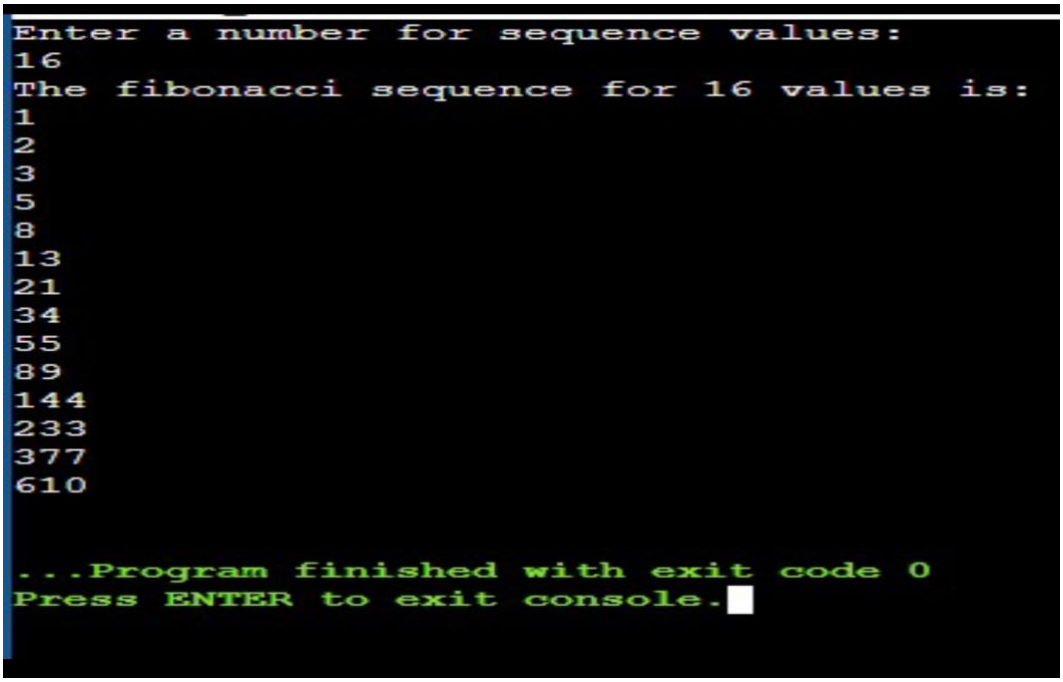
RESULT:



TASK # 4

CODE:

```
#include <iostream>

Using namespace std;

Int seq, sec = 1, fir = 0;

Int n;

Cout<<"Enter a number for sequence values:"<<endl; cin>>n;

Cout<<"The fibonacci sequence for "<<n<<" values is:"<<endl;

For (int I = 1; i<n; i++)

If (i<=1) {

        Seq = I;


} else {

        Seq = fir + sec;
```

```
        Fir = sec;

        Sec = seq;

        Cout<<seq<<endl;
}


Return 0;

}
```

RESULT: