National University of Science and Technology

School of Mechanical and Manufacturing Engineering

Lab Task #04

CS-114 Fundamentals of Programming

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Introduction:

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Task 1:

```
#include <iostream>
using namespace std;
int main(){
  int sum=0, i=0;
  for(i=0;i<=10;i+=1){
     cout<<"Input Number: ";
  cin>>i;
  sum+=i;
     cout<<"The Sum is:"<<sum<<endl;
}
return 0;}</pre>
```

Result:

```
C:\Users\zennshi\Documents\Programming\Untitled1.exe
Input Number: 1
The Sum is:1
Input Number: 2
The Sum is:3
Input Number: 3
The Sum is:6
Input Number: 4
The Sum is:10
Input Number: 5
The Sum is:15
Input Number: 6
The Sum is:21
Input Number: 7
The Sum is:28
Input Number: 8
The Sum is:36
Input Number: 9
The Sum is:45
Input Number: 10
The Sum is:55
Process exited after 9.926 seconds with return value 0
Press any key to continue . . .
```

Task 2:

```
#include <iostream>
using namespace std;
int main(){
  int table,num;
  cout<<"Input Number: ";
  cin>>table;
  for(num=1;num<=10;num+=1){
    cout<<"The Table Of "<<table<<" is: ";
    cout<<table<<" x "<<num<<" = "<<num*table<<endl;
}
  return 0;
}</pre>
```

Result:

```
Input Number: 6
The Table Of 6 is: 6 x 1 = 6
The Table Of 6 is: 6 x 2 = 12
The Table Of 6 is: 6 x 3 = 18
The Table Of 6 is: 6 x 4 = 24
The Table Of 6 is: 6 x 5 = 30
The Table Of 6 is: 6 x 6 = 36
The Table Of 6 is: 6 x 7 = 42
The Table Of 6 is: 6 x 8 = 48
The Table Of 6 is: 6 x 9 = 54
The Table Of 6 is: 6 x 10 = 60
```

Task 3:

```
//Program For Factorial Of A Number #include <iostream>
```

```
using namespace std;
int main(){
  double a,factorial;
factorial=1;
  cout<<"Input Number: ";
  cin>>a;
  while(a>0){
  factorial*=a;
  a--;
  }
  cout<<"The Factorial Of Given Number is: "<<factorial<<endl;
  return 0;
}</pre>
```

Result:

```
C:\Users\zennshi\Documents\Programming\Untitled3.exe

Input Number: 9
The Factorial Of Given Number is: 362880

Process exited after 6.964 seconds with return value 0

Press any key to continue . . .
```

Task 4:

```
// Program To Print Fibonacci Sequence
#include <iostream>
using namespace std;
int main(){
int a=0,b=1,end,k,newt;
cout<<"The Number of terms in Fibonacci Sequence: ";</pre>
```

```
cin>>end;
cout<<a<<endl;
cout<<b<<endl;
while(k<end-1){
newt = a+b;
cout<<newt<<endl;
a=b;
b=newt;
k++;
}
return 0;}</pre>
```

Result:

```
The Number of terms in Fibonacci Sequence: 9

0

1

1

2

3

5

8

13

21

34

Process exited after 1.892 seconds with return value 0

Press any key to continue . . .
```