NUST

NATIONAL UNIVERSITY
OF SCIENCES & TECHNOLOGY

FUNDAMENTALS OF PROGRAMING

LAB MANUAL-4

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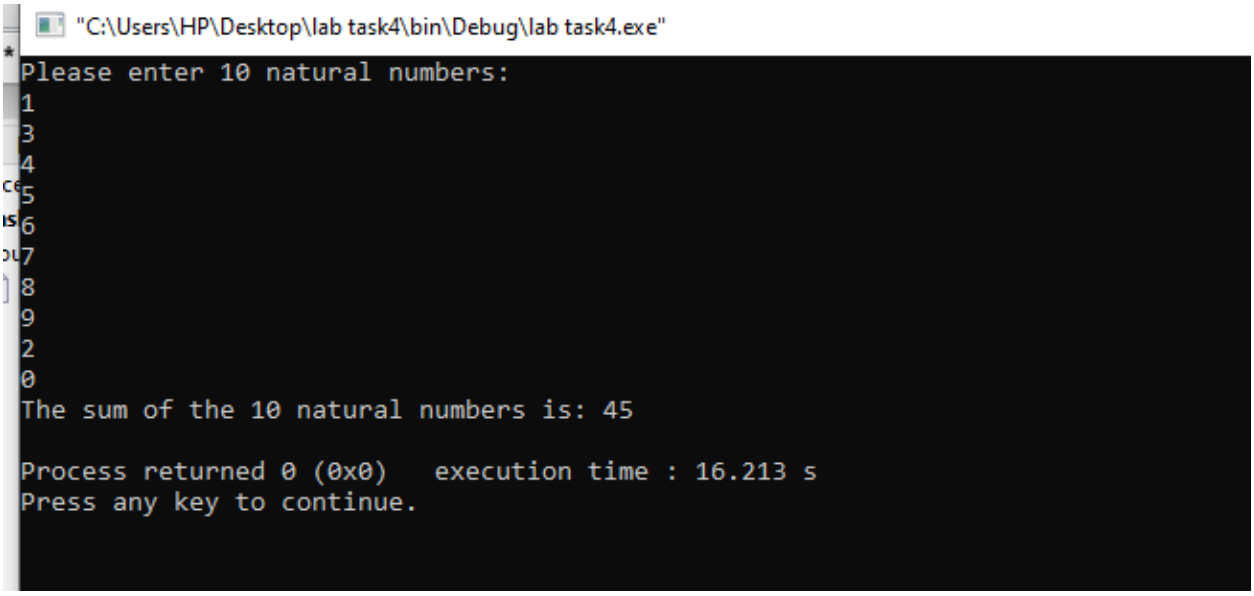
CLASS : ME_15

SECTION : C

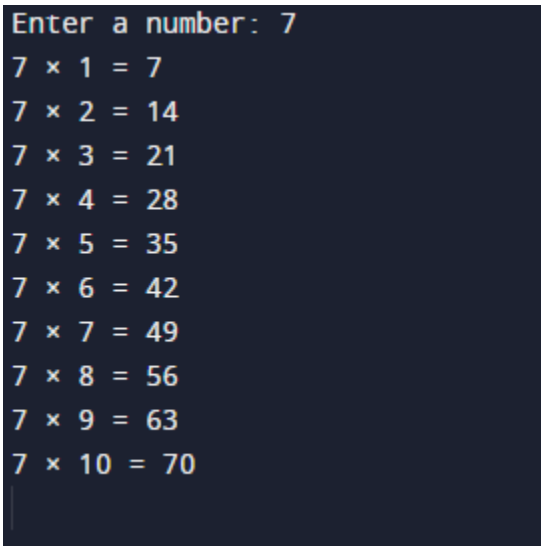
Task 1

```
#include <iostream>

using namespace std;

int main() {
   int sum = 0;
   int number;
   cout << "Please enter 10 natural numbers:" << endl;
   for (int i = 0; i < 10; i++) {
      cin >> number;
      sum += number;
   }
   cout << "sum of ten number is equal to " << sum << endl;
   return 0;
}
```



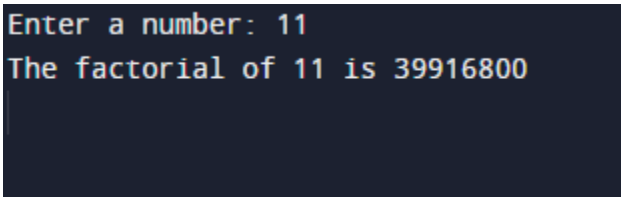
Task 2

```
#include <iostream>

int main() {
   int input;
   std::cout << "Enter a number: ";
   std::cin >> input;


   for (int k= 1; k <= 10; k++) {
      int result = input * k;
    std::cout << input<< " × " << k << " = " << result << std::endl;
   }
   return 0;
}
```



Task 3

```
#include <iostream>

int main() {
    int number;
    int factorial = 1;
    std::cout << "Enter a number: ";
    std::cin >> number;
    for (int f = 1; f <= number; f++) {
        factorial *= f;
    }
    std::cout << "The factorial of " << number << " is " << factorial << std::endl;
return 0;
}
```



Task 4

```
#include <iostream>

int main() {
   int limit;
   std::cout << "Enter any limit:";
   std::cin >> limit;
   int first = 3;
   int second =5;
   std::cout << "Fibonacci sequence upto given number " << limit << " ";
   std::cout << first << " " << second << " ";
   while (first + second <= limit) {
      int next = first + second;
      std::cout << next << " ";
      first = second;
      second = next;
   }
   std::cout << std::end;
   return 0;
}
```

```
Enter any limit:34
Fibonacci sequence upto given number 34 3 5 8 13 21 34
```