

Lab-03

Noakhali Science and Technology University
Course Title: Structured Programming Language Lab
Course Code: CSTE-1202

LAB-3: Decision Making & Looping

1. Write a program to print n consecutive numbers i.e. 1, 2, 3, ..., n using for / while / do...while loop.
2. Write a program to compute the sum of n consecutive numbers i.e. starting from 1 using for / while / do...while loop.
3. Using for / while / do...while loop calculate the output each of the followings:
 - i) $2+4+6+ \dots + n$
 - ii) $3+6+9+ \dots + n$
 - iii) $12+22+32+ \dots + n^2$
 - iv) $12+32+52+ \dots + n^2$
4. Write a program to compute the factorial of a given integer number.
5. Two numbers x, y are entered through the keyboard. Write a program to find the value of one number raised of the power of another i.e. xy .
6. The numbers in the sequence 1 1 2 3 5 8 13 21 are called Fibonacci numbers. Write a program to generate and print first n Fibonacci numbers.
7. Given a number, write a program to reverse the digits of the number. For example, the number 12345 should be written as 54321. Also calculate the sum of the digits of the given integer number.
8. Write a program to produce each of the following output:
9. Write a program to determine whether a given integer number is prime or not.

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1 1 1 0 1
1 1 1 1 0
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2 2
3 3 3
4 4 4 4
5 5 5 5 5
1
1 2
1 2 3
1 2 3 4
1 2 3 4 5
5 4 3 2 1
4 3 2 1
3 2 1
2 1
1
1
2 3
4 5 6
7 8 9 10
11 12 13 14
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