

# CS4051 Information Systems

## Lab work – week 4

1. Write a program that takes a number N as input and prints the sum of all the numbers from 1 to N.
2. Write a program that takes N numbers as input from a user and puts them in a list. Then the program should find out the sum of all the odd numbers and the sum of all the even numbers from the list and print them out.
3. Write a program that takes N number of integers as input and puts them in a list. Then it should find out the maximum and minimum number from the list and print them out. The whole list must also be printed out.

*(Hint: Assume that the first element of the list is maximum/minimum element, then iterate through the list comparing the assumed value with every other element to find the maximum and minimum value)*

4. A Fibonacci sequence is characterized by the fact that every number after the first two is the sum of the two preceding ones. By definition, the first two numbers in the Fibonacci sequence are 1 and 1.

1, 1, 2, 3, 5, 8, 13, 21, 34, 55

Write a program that generates the first N numbers of the Fibonacci sequence and prints them out. N should be taken as input from the user.

*(Hint: Use lists)*

5. Write a program that creates and prints out a list containing only the unique elements from an existing list.

[1, 1, 2, 3, 3, 4, 4, 5, 6, 5, 6] -> [1, 2, 3, 4, 5, 6]

6. Write a program creates and prints a new list with the elements of an existing list in reverse order.

[1, 2, 3, 4, 5, 6] -> [6, 5, 4, 3, 2, 1]