Columbia College
Vancouver, Canada

Introduction to Computer Science and Programming 1
CSCI120

Chapter8: List

Lab

# of Students in the Group:		
Student 1	*First name, last name*	*Student-ID*
Student 2	*First name, last name*	*Student-ID*
Student 3	*First name, last name*	*Student-ID*
Student 4	*First name, last name*	*Student-ID*

Note: Only use lists to solve the following problem

Problem1

- Design and implement a function which receives a list of numbers and returns the reverse of the list.

Problem2

- Define and implement a function which return the multiple table of 1 to 10. The item located at index [i,j] should represent the result of $(i+1)*(j+1)$

Problem3

- Define and implement a function which receives 2 lists as its input parameters (list 1 and list2). The function will return True if list2 is just different arrangement of list1.

Problem4

- Define and implement a function which receives a list of numbers and returns a number which is actually an index (i) of the input array. This function checks whether the input list is a "Splitable" into two lists List1:[0…i] and list2[i+1, ..n] where n is the last index of the list, where the sum (List1) = sum(List2)

Problem5

-   Define and implement a function with a number (n) as its input parameter (n is less than 20). The function generate and returns a list with the following specification:
    o   The length of the list should be equal to n.
    o   The function will try to generate n random number greater than 0 and add it to a list.
    o   A generated random number (between 0 and 100) is only added to the list if it is strictly bigger than any other number in the list.
    o   It is likely that the function cannot generate such a list. If the function cannot generate such a list completely, it should return an empty list instead.
        ▪   For instance, if n = 10 and the first randomly generated number is 93 (as an example) it is not possible to generate 9 more numbers that are less than 100 and greater than 93. In this case the function should stop and returns an empty list.

Problem6

- Define and implement a function which return the multiple table of 1 to 10. The item located at index [i,j] should represent the result of (i+1)*(j+1)

Problem7

- Define and implement a function which receives 2 lists as its input parameters (list 1 and list2). The function will return True if list2 is just different arrangement of list1.

Good Luck ☺