Columbia College
Vancouver, Canada

Introduction to Computer Science and Programming 1
CSCI120

Chapter8: List

Chapter 8-Sample Coding

Note: This document has been designed and developed as part of an initiative for creating an OER (Open Education Resource) package for the course CSCI 120 at Columbia College.

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Problem1

- Write a function which take a list of number as an input parameter and find the second maximum of the list. The second maximum is a number which is bigger than or equal to all numbers but smaller than the maximum of the list.

Problem2

- Define and implement a function which does linear search. This function receives two input parameters, one is a list of integers and the other one is a number to search for. The function returns -1 if the number (the second parameter of the function) does not exist in the list or return the index of the number if the number exists in the list.
- If there are more than one occurrence of the number, the function will return the index of the first occurrence

Problem3

- Design and implement a function which receives two input parameters 1) a list of integer numbers and 2) a number. The function will find any occurrence of the given input number in the list and remove the number from the list and finally will return the new list.

Problem4

- Implement a function which receives a list of numbers as an input parameter. The function will find a sub-list from the list which is sorted and its length is greater than 4 and return the sub-list. If there are more than 1 sub-list, the function can return only one of them. If there is no such sub-list in the list, the function will return None.