

ES 102 - Introduction to Computing

Lab Assignment - 3

September 18 - 25, 2015

1. Design an algorithm to find the maximum and minimum elements present in a given integer array (list).
2. Design an algorithm to copy the elements of one list into another in the reverse order.
3. Design an algorithm to find the mean and variance of the elements present in a list.
4. Design an algorithm to find the second highest and second lowest values present in a list.
5. Design an algorithm to merge two lists into one list having alternate values from a different list.
6. Design an algorithm to create a new list containing all the elements from a list less than a given number.
7. Design an algorithm to create two lists from a given list one containing only positive numbers and the other containing only negative numbers.
8. Design an algorithm to combine the integers present in a list into a single string in ascending order.
9. Design an algorithm to check for the first occurrence of a character in a string and delete that particular character from the string.
10. Design algorithms to extract first k characters from a given string and extract the last k characters from a given string.
11. Design an algorithm to replace the first occurrence of a character with a new character in a given string.