P4 (E1 Group)

Assume you are given an array A of positive integers in random order and two integers, X and Y. X and Y are also present in the array A Further, A will have equal number of X's and Y's and no two X's will appear adjacent to each other. You are supposed to return an array B containing exactly the same numbers in the given array A but rearranged such that every X is immediately followed by Y. When rearranging the numbers, you cannot move X's but all other numbers including Y can be moved.

Develop a Python program to read a file containing an array A and the two integers X and Y values in every line and output the corresponding rearranged array B for each case in a separate line. You have to output the results to the screen and to an output file named "Output.txt".

Special requirement. You must define at least 2 functions and use them in your code.

Format:

Input: Name of input file (Each line of the file contains an array A followed by X and Y. Array A is a c comma separated list of integers enclosed within square brackets. A and the corresponding X and Y values are separated by space)

Output: Display on screen and write to the output file 'Output.txt'.

Sample:

Case 1

input: test_data1.txt

Contents: [5,4,9,4,9,5] 4 5

                  [1,3,1,8] 3 8

                  [2,5,10,11,2,5,9] 5 2

Output: Output.txt and on screen

Contents: [9,4,5,4,5,9]

                  [1,3,8,1]

                  [10,5,2,11,9,5,2]

Case 2

input: test_data2.txt

Contents: [5,4,9,4,9,5] 4 5

                  [1,3,1,8] 3 8

Output: Output.txt and on screen

Contents: [9,4,5,4,5,9]

                  [1,3,8,1]