TASK 8

1.Implement a Program to replace all 0's with 1 in a given integer. Given an integer as an input, all the 0's in the number has to be replaced with 1.

For example, consider the following number

Input: 102405

Output: 112415

Input: 56004

Output: 56114

2. Printing an array into Zigzag fashion. Suppose you were given an array of integers, and you are told to sort the integers in a zigzag pattern. In general, in a zigzag pattern, the first integer is less than the second integer, which is greater than the third integer, which is less than the fourth integer, and so on. Hence, the converted array should be in the form of e1 < e2 > e3 < e4 > e5 < e6.

Test cases:

Input 1:
7
4 3 7 8 6 2 1

Output 1:
3 7 4 8 2 6 1

Input 2:
4
1 4 3 2

Output 2:
1 4 2 3

3. Program to find all the patterns of 0(1+)0 in the given string. Given a string containing 0's and 1's, find the total number of 0(1+)0 patterns in the string and output it.

0(1+)0 - There should be at least one '1' between the two 0's.

For example, consider the following string.

Input: 01101111010

Output: 3

Explanation:

01101111010 - count = 1

011**01111**10 - count = 2

01101111**010**- count = 3

Step to find all the patterns of 0(1+)0 in the given string

- Input the given string.
- Scan the string, character by character.
- If the given pattern is encountered, increment count.
- Print count.

Program to find all the patterns of 0(1+)0