

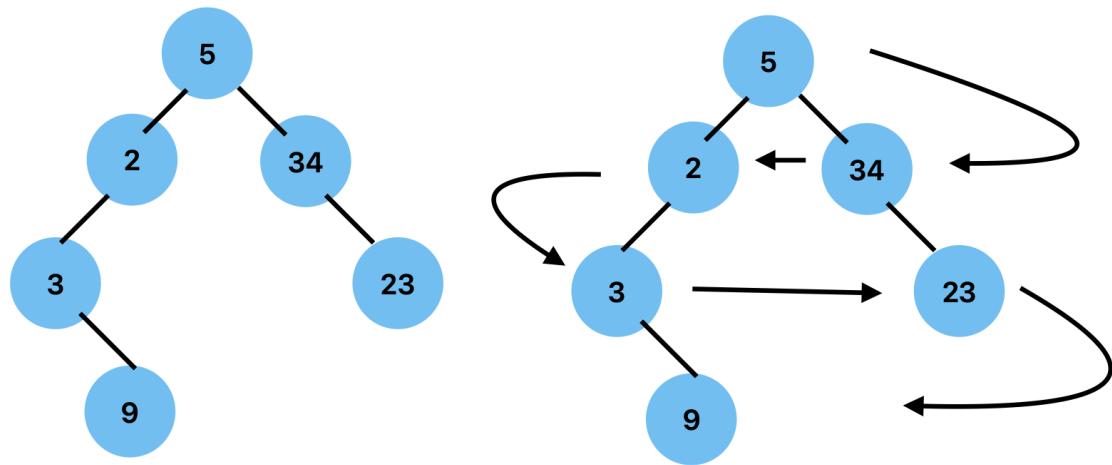
Zig-Zag tree

In this task you will get a representation of a binary tree tree data structure. Your goal is to send back the elements of this tree map in zig zag order.

You should read every level separately, changing between left to right and right to left reading.

The input of this task is an array where every number is a node and every '-1' is an empty node. So you can reconstruct the tree from the array by filling up all the available spaces from left to right in a row with a node or an empty node.

Input
[5, 2, 34, 3, -1, -1, 23, -1, 9, -1, -1]



Output
[5, 34, 2, 3, 23, 9]