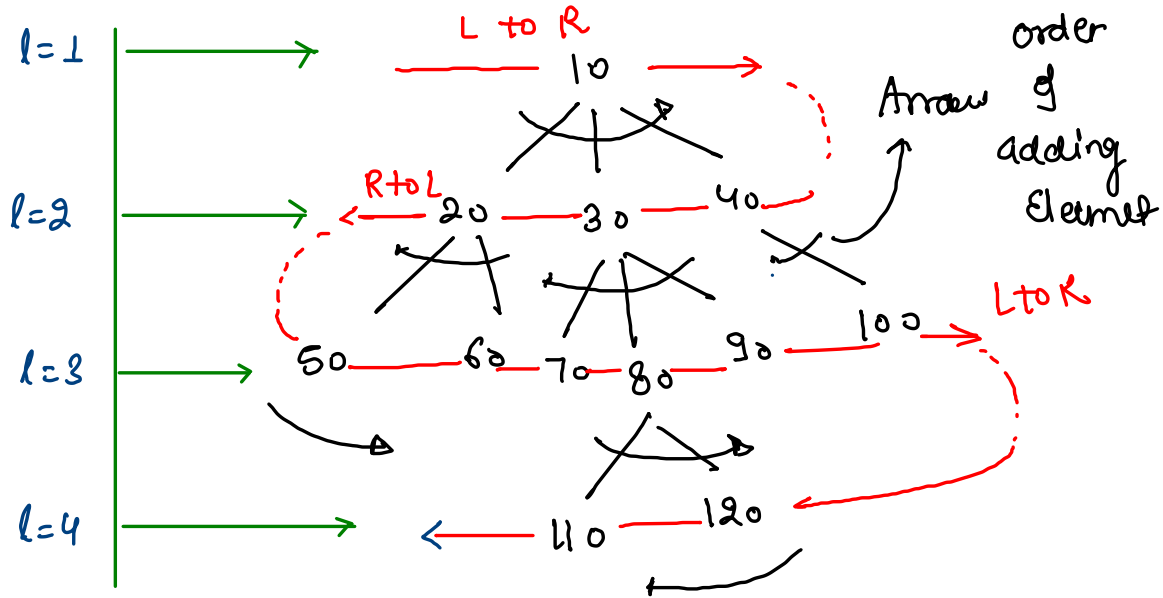
Level order zigzag



level 1 2 1 2 1

odd 1 → left to Right

Even 2 → Right to left

10

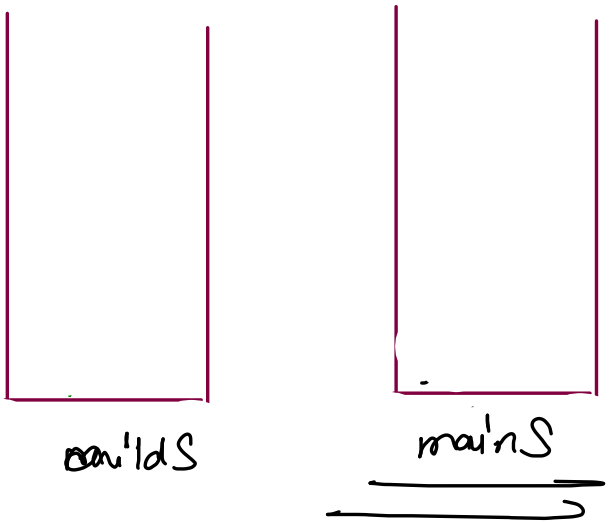
40 30 20

50 60 70 80 90 100

120 110

level - odd → left to Right

level - Even → Right to left



level = ~~1~~ ~~2~~ 3 4

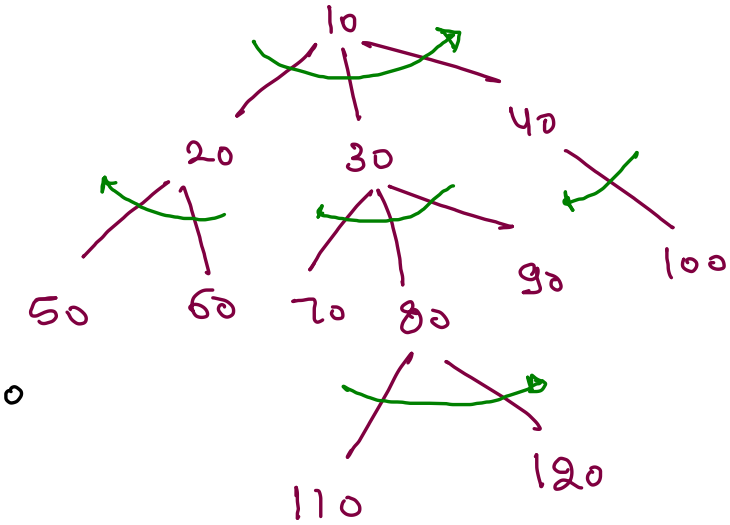
10

40 30 20

50 60 70 80 90 100

120 110

level is Helping for odd level and Even level



mainS.size() == 0

level++;

Hit Enter

swap mainS and childS

level - odd → addition of Child → left to Right

level - Even → addition of Child: Right to left

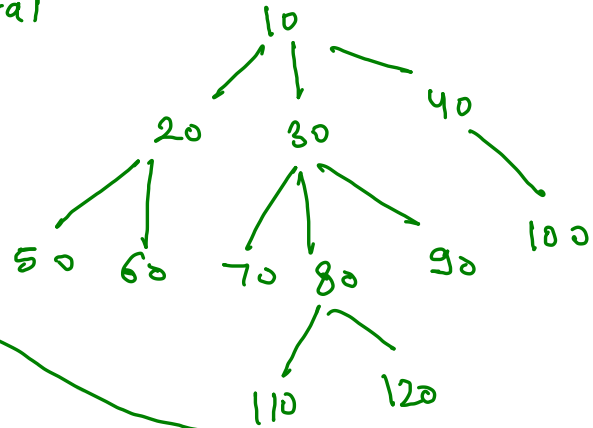
Addition and removal

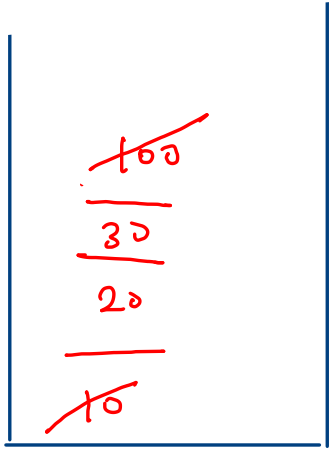
End is same

So this

solution will

not work





10

40 100

```
st.push(node);
int lvl = 1;
while(st.size() > 0) {
    int sz = st.size();
    while(sz-- > 0) {
        Node rem = st.pop();
        System.out.print(rem.data + " ");

        if(lvl % 2 == 1) {
            // odd level -> left to right
            for(int i = 0; i < rem.children.size(); i++) {
                Node child = rem.children.get(i);
                st.push(child);
            }
        } else {
            // even level -> right to left
            for(int i = rem.children.size() - 1; i >= 0; i--) {
                Node child = rem.children.get(i);
                st.push(child);
            }
        }
    }
    System.out.println();
    lvl++;
}
```