Tree Add Mono

by Ralfazza Rajariandhana

Description

Jeffrey has been 👀 this one girl, he's like, "*Bet, I'm gonna rizz her so hard, fr* ❌ 🫧". He wants to pass her vibe ✅ so he thinks a way to rizz her without cringing. Jeffrey then caught her in 4K yapping "*Low* 🔑*, guys who loves* 🌴 *hits different, ain't sus at all*". He then crack open his 💻 and looks what's good about 2 🔍 🌴. Major bummer, Jeffrey's 👨🏽‍💻 skills are mid. Being a banger friend and a 🐐 👨🏽‍💻, help Jeffrey pass her vibe ✅ by cooking a 🔥 program about trees.

Input Format

You are given `n` lines of commands until the command `END` is given. If the command is `TREE`, output the values inside the tree ascendingly. When the command is `ADD` it will be followed by a number `x` and you must insert `x` into the tree. If the command is `MONO`, print the current minimum value inside the tree.
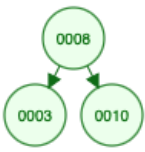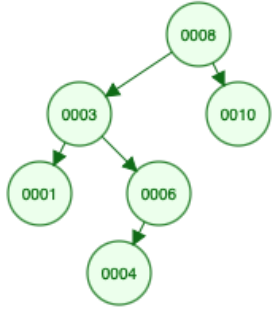
Output Format

Output the values according to the command given by the inputs.

Constraints and Rules

- `n` ∈ [1,1000]
- `x` ∈ [-1000,1000]
- `x` is guaranteed to be unique, no duplicate numbers will be given in the input
- No implementation of a tree data structure will result in a ZERO

- Having a variable that keeps the minimum x is not allowed

Example 1

Input
| ```
ADD 8
ADD 3
ADD 10
TREE
MONO
ADD 1
ADD 6
ADD 4
TREE
MONO
ADD 7
ADD 14
ADD 13
TREE
END
``` |
| **Output** |
| ```
3 8 10
3
1 3 4 6 8 10
1
1 3 4 6 7 8 10 13 14
``` |
| **Explanation** |

In this state, when the command is TREE, it will print 3 8 10, when the command is MONO, it prints the minimum value which is 3	
In this state, when the command is TREE, it will print 1 3 4 6 8 10, when the command is MONO, it prints the minimum value which is 1	

In this state, when the command is `TREE`, it will print `1 3 4 6 7 8 10 13 14`, when the command is `MONO`, it prints the minimum value which is `1`