The Algorithm Design Canvas

HIRED IN TECH

Constraints

* mountain: sequence of consecutive steps AS. Start: U End: D
* valley: sequence of consecutive steps BS. Start: D End: U
* 2 <= n <= 10^6
* s[i] belongs {U, D}

[U, D, D, D, U, D, U, U]

Ideas

* check inputs validity
* check if not last position
* unitsFromSeaLevel = 0; valleys = 0 (starting point)
* loop on array
* if curr=D -> if at sea level -> possibleValley++,
     unitsFromSeaLevel--
* if curr=U -> unitsFromSeaLevel++,
    it at sea level and possibleValley ->
     valleys++;
	O(n)

	O(n)

Test Cases

Code