Problem 2011: Final Value of Variable After Performing Operations

Problem Information

Difficulty: Easy
Acceptance Rate: 90.54%
Paid Only: No
Tags: Array, String, Simulation

Problem Description

There is a programming language with only **four** operations and **one** variable `X`:

* `++X` and `X++` **increments** the value of the variable `X` by `1`. * `--X` and `X--` **decrements** the value of the variable `X` by `1`.

Initially, the value of `X` is `0`.

Given an array of strings `operations` containing a list of operations, return _the**final** value of _`X` _after performing all the operations_.

Example 1:

Input: operations = ["--X","X++","X++"] **Output:** 1 **Explanation:** The operations are performed as follows: Initially, X = 0. --X: X is decremented by 1, X = 0 - 1 = -1. X++: X is incremented by 1, X = -1 + 1 = 0. X++: X is incremented by 1, X = 0 + 1 = 1.

Example 2:

Input: operations = ["++X","++X","X++"] **Output:** 3 **Explanation:** The operations are performed as follows: Initially, X = 0. ++X: X is incremented by 1, X = 0 + 1 = 1. ++X: X is incremented by 1, X = 1 + 1 = 2. X++: X is incremented by 1, X = 2 + 1 = 3.

Example 3:

Input: operations = ["X++","++X","--X","X--"] **Output:** 0 **Explanation:** The operations are performed as follows: Initially, X = 0. X++: X is incremented by 1, X = 0 + 1 = 1. ++X: X is incremented by 1, X = 1 + 1 = 2. --X: X is decremented by 1, X = 2 - 1 = 1. X--: X is decremented by 1, X = 1 - 1 = 0.

Constraints:

* `1 <= operations.length <= 100` * `operations[i]` will be either `"++X"`, `"X++"`, `"--X"`, or `"X--"`.

Code Snippets

C++:

```
class Solution {
public:
int finalValueAfterOperations(vector<string>& operations) {

}
};
```

Java:

```
class Solution {
public int finalValueAfterOperations(String[] operations) {

}
}
```

Python3:

```
class Solution:
def finalValueAfterOperations(self, operations: List[str]) -> int:
```