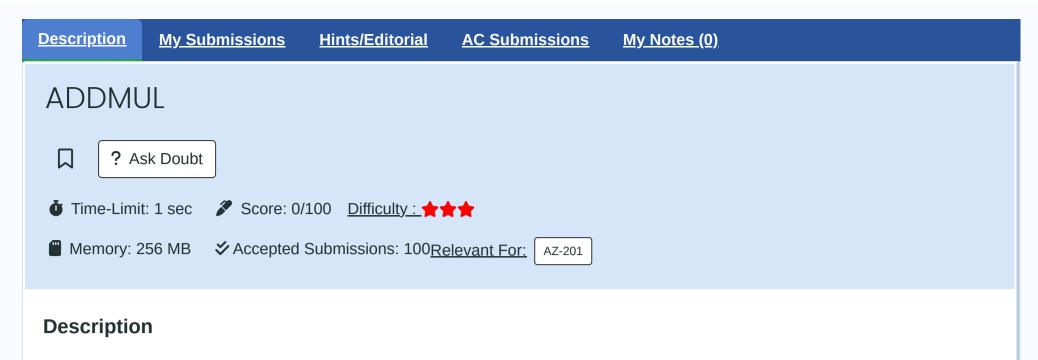
09/05/2024, 19:26 ADDMUL



Implement a data structure that supports appending a value to an integer sequence, adding or multiplying a given value to all elements present in the sequence and displaying the value present at any index of the sequence.

## **Input Format**

Implement the AddMul class:

- AddMul(): Initializes the object with an empty sequence.
- void append(val): Appends an integer val to the end of the sequence.
- void add(inc): Increments all existing values in the sequence by an integer inc.
- void mult(mul): Multiplies all existing values in the sequence by an integer mul.
- int get(idx): Gets the current value at index *idx* (0-indexed) of the sequence **modulo** 10<sup>9</sup> + 7. If the index is greater or equal than the length of the sequence, return -1.

## **Output Format**

For every time the *get* function is called return the value present at the given index.

## **Constraints**

 $1 \le \text{val}$ , inc,  $m \le 100$ 

 $0 \le idx \le 10^5$ 

At most  $10^5$  calls are made in total to append, add, mult and get.

## Sample Input 1

Copy

```
11
append 2
add 3
append 7
mult 2
get 0
add 3
append 10
mult 2
get 0
get 1
get 2
```

<u>C++14[GCC]</u> ▼

```
Submit

1 * #include <bits/stdc++.h>
2 using namespace std;
3
4 class AddMul
```