Array Manipulation

by amititkgp

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Russian

You are given a list(1-indexed) of size n, initialized with zeroes. You have to perform m operations on the list and output the maximum of final values of all the n elements in the list. For every operation, you are given three integers a, b and k and you have to add value k to all the elements ranging from index a to b(both inclusive).

For example, consider a list a of size 3. The initial list would be a = [0, 0, 0] and after performing the update `0(a,b,k) = (2, 3, 30)`, the new list would be a = [0, 30, 30]. Here, we've added value 30 to elements between indices 2 and 3. Note the index of the list starts from 1.

Input Format

The first line will contain two integers n and m separated by a single space.
Next m lines will contain three integers a, b and k separated by a single space.
Numbers in list are numbered from 1 to n.

Constraints

- $3 \leq n \leq 10^7$
- $1 \leq m \leq 2 * 10^5$
- $1 \leq a \leq b \leq n$
- $0 \leq k \leq 10^9$

Output Format

Print in a single line the maximum value in the updated list.

Sample Input

```
5 3
1 2 100
2 5 100
3 4 100
```

Sample Output

```
200
```

Explanation

After first update list will be `100 100 0 0 0`.
After second update list will be `100 200 100 100 100`.
After third update list will be `100 200 200 200 100`.
So the required answer will be 200.

Submissions:43799

Max Score:60
Difficulty: Hard

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Current Buffer (saved locally, editable) Java 8

```
1  import java.io.*;
2  import java.util.*;
3  import java.text.*;
4  import java.math.*;
5  import java.util.regex.*;
6
7  public class Solution {
8
9      public static void main(String[] args) {
10         Scanner in = new Scanner(System.in);
11         int n = in.nextInt();
12         int m = in.nextInt();
13         for(int a0 = 0; a0 < m; a0++){
14             int a = in.nextInt();
15             int b = in.nextInt();
16             int k = in.nextInt();
17         }
18         in.close();
19     }
20 }
21
```

Line: 1 Col: 1

Upload Code as File Test against custom input Run Code Submit Code