Minimum Value

Assignment 2
Computer Programming
Due date: TBA

Problem Statement: Students of IIIT-H like to read a lot. So, the library is their favourite place in the world. They check out books very often and this has become a problem for the librarian. The librarian is a dumb computer science person, who likes to keep the track of the number of times a book has been checked out. There are N books in the library numbered from 1 to N. Usually, students like to check out a series of consecutive books. So in a given transaction, a student checks out all books between index L and R (inclusive). Not only that, they generally checks out these books many times, because they like the books that much. After Q such studious students come into the library, can you help our librarian figure out which book had been checked out the least number of times?

Input
The first line of the input contains a single integer T denoting the number of test cases. The description of T test cases follows.
The first line of each test case contains two space-separated integers N and Q, the number of books and the number of studious students. Each of the next Q lines contains three space-separated integers L, R and X, the leftmost book number, the rightmost book number and the number of times the student checks out these books.

Output
Return the book number which had been checked out the least number of times. If there are many such books, return the least book number.

Constraints
$1 \leq T \leq 10$
$1 \leq N \leq 10^6$
$1 \leq Q \leq 10^5$
$1 \leq L \leq R \leq N$
$1 \leq X \leq 10^9$

Time Limit: 1 sec
Memory Limit: 256 MB

Sample Test Case

Input	Output
2 4 3 2 3 10 1 1 12 1 4 11 2 2 1 1 2 2 2 2	4 1

Explanation
In first test case:
After the first student come, array will be 0 10 10 0.
After the second student come, array will be 12 10 10 0.
After the third student come, array will be 23 21 21 11.
So 4th book has been checked out least number of times.

In second test case, both books has been checked out equal number of times.