

PROBLEMS SUBMIT CODE MY SUBMISSIONS STATUS HACKS ROOM STANDINGS CUSTOM INVOCATION

### C. Dijkstra?

time limit per test: 1 second  
memory limit per test: 64 megabytes

You are given a weighted undirected graph. The vertices are enumerated from 1 to  $n$ . Your task is to find the shortest path between the vertex 1 and the vertex  $n$ .

#### Input

The first line contains two integers  $n$  and  $m$  ( $2 \leq n \leq 10^5$ ,  $0 \leq m \leq 10^5$ ), where  $n$  is the number of vertices and  $m$  is the number of edges. Following  $m$  lines contain one edge each in form  $a_i$ ,  $b_i$  and  $w_i$  ( $1 \leq a_i, b_i \leq n$ ,  $1 \leq w_i \leq 10^6$ ), where  $a_i$ ,  $b_i$  are edge endpoints and  $w_i$  is the length of the edge.

It is possible that the graph has loops and multiple edges between pair of vertices.

#### Output

Write the only integer  $-1$  in case of no path. Write the shortest path in opposite case. If there are many solutions, print any of them.

#### Examples

input	Copy
5 6 1 2 2 2 5 5 2 3 4 1 4 1 4 3 3 3 5 1	
output	Copy
1 4 3 5	

input	Copy
5 6 1 2 2 2 5 5 2 3 4 1 4 1 4 3 3 3 5 1	
output	Copy
1 4 3 5	

#### Codeforces Alpha Round 20 (Codeforces format)

Finished

Practice



#### Virtual participation

Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you - solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you - solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.

Start virtual contest

#### Clone Contest to Mashup

You can clone this contest to a mashup.

Clone Contest

#### Submit?

Language: GNU G++20 13.2 (64 bit, win

Choose file: Choose File No file chosen

Submit

#### Last submissions

Submission	Time	Verdict
299098806	Dec/30/2024 20:48	Accepted
299098675	Dec/30/2024 20:46	Wrong answer on test 4
278866609	Aug/31/2024 01:30	Accepted

#### Problem tags

graphs shortest paths \*1900

No tag edit access

Supported by

