

## C. Dijkstra?

time limit per test: 1 second

memory limit per test: 64 megabytes

input: standard input

output: standard output

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

<b>input</b>	<a href="#">Copy</a>
<pre>5 6 1 2 2 2 5 5 2 3 4 1 4 1 4 3 3 3 5 1</pre>	
<b>output</b>	<a href="#">Copy</a>
<pre>1 4 3 5</pre>	

  

<b>input</b>	<a href="#">Copy</a>
<pre>5 6 1 2 2 2 5 5 2 3 4 1 4 1 4 3 3 3 5 1</pre>	
<b>output</b>	<a href="#">Copy</a>
<pre>1 4 3 5</pre>	