Competitive Programming SS24
Submit until end of contest

Problem: essential (1.0 second timelimit)

The country of Byteland contains n cities, connected by a vast network of m streets. This network is the pride of Bytelands citizens, connecting any city with any other, and was always meticulously kept in shape.

Recently, however, hard times have befallen Byteland. After many arduous discussions, the national council has come to a grim conclusion: they won't be able to maintain the entire network anymore. They instead decided to focus on a few streets they deemed essential, namely the ones connecting the two largest cities, Bit and Nibble. Since there are many scenic countryside routes between the two cities, they further clarified that streets are only considered essential if they are part of a shortest route between the two.

Considering the sheer number of streets in the country, can you help them determine the essential ones?

Input   The first line contains n and m ($2 \leq n \leq 2 \cdot 10^5$, $1 \leq m \leq 2 \cdot 10^5$), the number of cities and streets. Each of the next m lines contains three integers c_1, c_2, l ($1 \leq c_1, c_2 \leq n$, $c_1 \neq c_2$, $1 \leq l \leq 10^6$), the two cities connected by a street and its length. All streets are bidirectional. There is at most one street between any pair of cities. Bit and Nibble are the cities 1 and 2 respectively.

Output   Write a line containing the number of essential streets, followed by another containing the ids (1 to m) of the essential streets in ascending order.

Sample input

```
3 3
1 3 1
3 2 2
1 2 3
```

Sample output

```
3
1 2 3
```

Sample input

```
5 6
1 3 1
3 4 1
1 4 3
4 2 1
1 2 3
4 5 1
```

Sample output

```
4
1 2 4 5
```