Toy Train

Problem Statement:

You have purchased a toy-train set online and wish to build the entire set of train tracks and stations to play with. There are a total of n train-stations and two stations are joined by a single track. So, there are a total of n-1 tracks. All stations are numbered 1 to n.

Now, along with the tracks and stations, you also have to order trains but they are costly, so you have to decide the number of trains wisely. There are some tracks which you definitely want to be visited. If you place a train on the 'i'th station, the train will follow the path from the 'i'th station to the 1st station. You have to decide the minimum number of trains to be ordered if you want all your tracks to be visited in one iteration.

Input Format:

The first line contains a single integer n — the number of train stations ordered.

Then n - 1 lines follow. Each line contains the description of the set as you are assembling them. Integers x_i, y_i, t_i — the stations (x_i and y_i) connected by the i-th track.

If t_i equals to two, then the i-th track is to be visited.

It's guaranteed that the graph structure of the set is a tree.

Output Format:

In the first line print a single non-negative number k — the minimum number of required trains. Then on the second line print k space-separated integers $a1$, $a2$, ... ak — the numbers of the stations on which the trains will be placed to visit all the required stations in one iteration. If there are multiple solutions, print any of them.

Constraints:

- $2 \leq n \leq 10^5$
- $1 \leq xi, yi \leq n$
- $1 \leq ti \leq 2$

Sample Input:

5

1 2 1

2 3 2

2 4 1

4 5 1

Sample Output:

1

3