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Emperor Alexander

locked

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Problem Statement

Emperor Alexander is envisioning an extensive network of roads connecting the N cities in his vast empire. To achieve this, he has devised a plan to construct E roads, each with its construction cost. However, upon closer examination, it has come to his attention that some of these roads may be redundant, leading to unnecessary expenses. He seeks your expertise in identifying these expendable roads and determining the minimum total construction cost to bring his vision to life. If it is impossible to realize this plan, please convey the message by printing "**Not Possible**".

Could you assist Emperor Alexander in finding the number of roads that can be removed from the plan to optimize costs and in calculating the minimum total construction cost?

Note: There can be multiple roads between two cities in that plan. But there will be no roads from city A to A .

Input Format

- First line will contain N and E . Each city is numbered from 1 to N .
- Next E lines will contain A , B and W . Which means there is a road between A and B where construction cost is W .

Constraints

- $1 \leq N \leq 10^5$
- $1 \leq E \leq 10^5$
- $1 \leq A, B \leq N$
- $1 \leq W \leq 10^9$

Output Format

- Output the number of roads need to remove, then the minimum construction cost to build the plan. If it's not possible print "**Not Possible**".

Sample Input 0

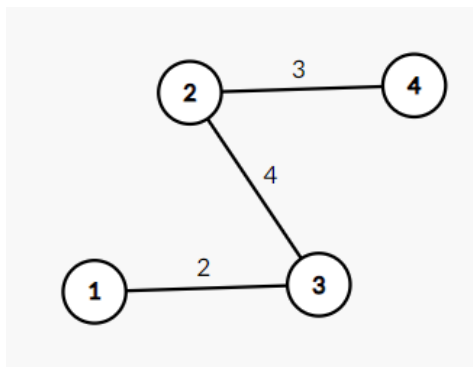
```
4 6
1 2 10
2 3 4
3 4 5
4 2 3
4 1 5
1 3 2
```

Sample Output 0

3 9

Explanation 0

He can build those roads in the following way, so 3 roads will be removed and minimum cost will be 9 to connect all cities.



Sample Input 1

```
4 4
1 2 10
1 3 2
2 1 5
3 1 6
```

Sample Output 1

Not Possible

Explanation 1

As there is no way to get to the 4th city, so it is not possible to connect all the cities using this plan.

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Submissions: 145

Max Score: 20

Difficulty: Easy

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C++20



```
1 #include <cmath>
2 #include <cstdio>
3 #include <vector>
4 #include <iostream>
5 #include <algorithm>
6 using namespace std;
7
8
9 int main() {
10     /* Enter your code here. Read input from STDIN. Print output to STDOUT */
```

```
11     return 0;  
12 }  
13
```

Line: 1 Col: 1

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