

Problem C: Maze

Time Limit: 1 Sec Memory Limit: 128 MB

Submit: 0 Solved: 0

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Description

Yuki is a careless girl and she is designing mazes.

A maze consists of n rooms and m passageways. The rooms are numbered from 1 to n and all the passageways are **unidirectional**, that is the passageway from room u to v **cannot** be passed from room v to u . Besides, to avoid tourists being trapped in the maze, all the rooms should be connected, that is for every pair of integers (u, v) such that $1 \leq u, v \leq n, u \neq v$, there should be a path from room u to room v .

Yuki has already designed a "maze". However, due to her carelessness, you need to check whether the maze she designed is a **real** maze, that is all the rooms in her maze are **connected**.

Input

The first line contains two integers: n and m ($1 \leq n, m \leq 200\,000$) --- the number of rooms and passageways in the maze.

Each of the next m lines contains two integers: u and v ($1 \leq u, v \leq n$), meaning that there is a unidirectional passageway from room u to room v .

Output

If all the rooms in the maze are connected, print "Bravo" (without quotation).

Otherwise print "ovarB" (without quotation).

Sample Input

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

Sample Output

```
ovarB
```

HINT

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