

# Artificium

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## Chain Words

Runtime Limit – 3s

## Problem Statement

Alice and Bob play a word chain game. In this game, the two players take alternating turns, with Alice going first.

The players have a word list consisting of  $N$  words. All words in the word list are distinct.

In each player's turn, the player chooses a word from the word list that satisfies the following two conditions:

- The word has not been chosen before by either player.
- Other than the first turn of the game, the first character of the chosen word must be the same as the last character of the previous word.

If a player is unable to choose a word satisfying the above conditions, that player loses and the other player wins.

Determine who wins, if both players play optimally.

## Format

### Input

**Line 1:** An integer  $N$ : the number of words in the word list.

**Next  $N$  lines:** A single string – a word in the word list.

### Output

**Print Alice or Bob, the winner of the game.**

## Constraints

$$1 \leq N \leq 16$$

The words in the word list are at most 12 letters long.

The words in the word list are all distinct.

## Sample

### Input

4

dog

cat

goat

toad

### Output

Alice