SE Factory

Week 1 - Assignments

```
version 02BD_1607

Change log
    - Fixed typos
```

PHP Introduction

Exercise 1

You are the game master of the game "Guess my hat color".

The game goes as ffollowing

You put a group of `n` people in `one row`, each facing the same direction. You assign a collored hat (white or black) to each person of the group. You let each person guess the color of their own hat, starting with the last person in the row.

There are only 2 colors of hats and each person can only see the color of hats in front of them. The group wins from the gamemaster if they can win by making **only 1 mistake**.

The challenge today is to write the logic to make the guess.

The person guessing can only see the persons in front of them (and their hats) and can hear the guesses from the persons behind them. They can **NEVER** look behind them or look at their own hat.

Formal Inputs & Outputs description

You get the list of hat colors starting with the person in the back and going to the front:

Sample Input 1 - 10 hats

```
Black
White
Black
Black
White
White
Black
White
White
White
```

Sample Input 2 - 10 hats

```
Black
Black
Black
Black
Black
Black
Black
Black
Black
White
```

Output

You have to show the guesses of the persons and whether they passed the challenge.

Exercise 2 - Code Golf

The three rows of the qwerty keyboard are `qwertyuiop`, `sdfghjkl` and `zxcvbnm`. Your task is to find the longest word that can be typed using only one row of the keyboard, from a given list of words.

Rules:

- Solution should be written in PHP
- Script should take as input a list of words (either typed or from a file)
- You can always assume that the solution will always 1 output
- Do not assume that words should have a meaning
- If no words from the same row is found output an error message
- This is a codegolf -> Shortest code (measured in number of characters) wins!

Sample Input

```
artist
house
garden
writer
fhdjsae
porto
laminus
xqwsrus
asnvfdl
```

Sample output

```
writer
```