

Hello People!

Your friend has seen a single lecture in programming, and has already developed an idea for a start-up. He was inspired by the *hello world* program that the professor presented, and wants to develop a more advanced variant of that. It's good to be courteous—he also says, explaining his idea to you—and I know how to be more sophisticated about it. Your friend wants the system to be able to output a generic greeting, as well as personalized greetings for individuals as well as groups, and with the right punctuation.

For example, if Rosa, Emma, and Noam walk into the room, then the greeting system should say: “Hello Rosa, Emma, and Noam!” If Antonio enters the room alone, the system should say “Hello Antonio!” Notice—your friend says—that if you want to say hello to only *two* people *A* and *B*, you simply say “Hello *A* and *B*!” You don't say “Hello *A*, *comma*, and *B*!” Got it?! And if the system does not know anyone's name, then the greeting should be a generic “Hello World!”.

So here you are. You must realize your friend's start-up idea.

Input

The first line of the input contains a single non-negative integer $n \leq 100$. If $n > 0$ then n lines follow, each one containing a single name. A *name* is a string of at most 20 alphabetic characters.

Output

The output must be a single line with the personalized greeting for those n names, or the generic greeting if n is 0.

Sample input 1

```
2
Alex
David
```

Sample output 1

```
Hello Alex and David!
```

Sample input 2

```
0
```

Sample output 2

```
Hello World!
```

Sample input 3

```
1
Ada
```

Sample output 3

```
Hello Ada!
```

Limits

Time limit is 1 seconds.

Memory limit is 256 megabytes.