Making a Scene

Trouble is brewing on the set of *Greenlight Casting Couch's* latest film. Before filming began an army of lawyers descended and each actor has had specified in their contract the exact number of scenes in which they are to appear. Fortunately the studio's own lawyers prevented them from specifying which actors had to appear together. Very fortunate, since physical constraints mean the set is only big enough for two actors to appear in any given scene, budgetary constraints mean each scene must contain two actors, and egos prevent any pair of actors from appearing in more than one scene together.

For example, suppose that actors 1, 2, 3, 4 and 5 were contracted to appear in 3, 2, 2, 2 and 1 scenes respectively. One solution would be for 5 scenes containing the following pairs of actors; 1-2, 1-3, 1-5, 2-4 and 4-3. A different solution would be for 5 scenes containing the following pairs: 1-2, 1-3, 1-4, 2-5 and 4-3.

The first line of the input will be an integer n ($2 \leq n \leq 50,000$) indicating the number of actors. This will be followed by n lines, the ith of which will indicate the number of scenes in which actor i is contracted to appear (between 1 and $n-1$ inclusive).

If it is possible to assign the actors to the film, you should first output a line with a single integer s, the number of scenes in the film (which will not need to exceed $1,000,000$). This should be followed by s lines, each containing two integers, with line j indicating the two actors to appear in the jth scene. If it is not possible to assign the actors to the film you should just output a single line containing the word `Impossible`.

Sample Input

```
5
2
3
2
1
2
```

Sample Output

```
5
5 3
4 1
2 5
2 3
1 2
```