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## Sort by swaps

Problem Code: **SWPSRT1**

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### Swap Sort

You are given an array  $A$  of size  $n$  (not exceeding 500), you are allowed a maximum of  $n - 1$  swaps where in each swap you can choose **any two** indices  $i, j$  such that  $0 \leq i, j \leq n - 1$  and swap the values of  $A_i$  and  $A_j$ .

Note that you **do not** need to minimise the number of swaps, and you are also **not required** to optimize the time complexity (note that the constraints allow solutions that are  $\mathcal{O}(n^2)$  as well), however you **cannot** swap more than  $n - 1$  times.

There may be many solutions, you can output **any** of them.

#### Input

The first line contains a single integer  $n$ , the number of elements in the array

The second line contains  $n$  space separated integers, the elements of the array

#### Output

In the first line print the number of swaps you need to perform, let this number be  $m$ .

In the next  $m$  lines, print two space separated integers  $i, j$  such that  $0 \leq i, j \leq n - 1$ .

After performing the swaps in the order in which your program gives the output, the array should become sorted in increasing order. (i.e.  $A_i \geq A_{i-1}$  for every  $i$  in the range  $[1, n - 1]$ ).

#### Constraints

$$1 \leq n \leq 500$$

$$-10^9 \leq A_i \leq 10^9$$

#### Sample Input

```
3
3 2 1
```

#### Sample Output

#### Submission Ends In

6 11 58  
Hrs Min Sec

My Submissions (/PEC2021E/status/SWPSRT1) All Submissions (/PEC2021E/status/SWPSRT1)

Successful Submissions



```
1
0 2
```

## Explanation

After the first swap, the elements  $A_0$  and  $A_2$  are swapped, and the array becomes sorted, i.e.  $\{1, 2, 3\}$

Author: [srikanth\\_adm \(/users/srikanth\\_adm/\)](/users/srikanth_adm/)

Date Added: 20-02-2021

Time Limit: 1 secs

Source Limit: 50000 Bytes

Languages: CPP14, C, JAVA, PYTH 3.6, PYTH, CS2, ADA, PYPY, PYP3, TEXT, PAS fpc, RUBY, PHP, NODEJS, GO, TCL, HASK, PERL, SCALA, kotlin, BASH, JS, PAS gpc, BF, LISP sbcl, CLOJ, LUA, D, R, CAML, rust, ASM, FORT, FS, LISP clisp, SQL, swift, SCM guile, PERL6, CLPS, WSPC, ERL, ICK, NICE, PRLG, ICON, PIKE, COB, SCM chicken, SCM qobi, ST, NEM, SQLQ

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CodeChef was created as a platform to help programmers make it big in the world of **algorithms**, **computer programming**, and **programming contests**. At CodeChef we work hard to revive the geek in you by hosting a **programming contest** at the start of the month and two smaller programming challenges at the middle and end of the month. We also aim to have training sessions and discussions related to **algorithms**, **binary search**, technicalities like **array size** and the likes. Apart from providing a platform for **programming competitions**, CodeChef also has various algorithm tutorials and forum discussions to help those who are new to the world of **computer programming**.

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