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## Course outline

How does an NPTEL online course work?

Week 0

Week 1

Week 2

Week 3

week 4

Week 5

Week 6

Week 7

Week 8

Week 9

Week 10

● FLAMES - Part 01 (unit?)

# Programming Assignment-3: Rearrangement

**Due on 2020-04-09, 23:59 IST**

Given a list **A** of elements of length **N**, ranging from **1 to N**. All elements may not be present in the array. If the element is not present then there will be -1 present in the array. Rearrange the array such that **A[i] = i** and if **i** is not present display -1 at that place.

Input Format:

The first line contains **n** numbers with each number separated by a space.

Output Format:

Print the elements of the list after the modification.

Example:

Input:

-1 -1 6 1 9 3 2 -1 4 -1

Output:

-1 1 2 3 4 -1 6 -1 -1 9

Explanation:

The modified list contains elements such that **A[i] = i**.

## Sample Test Cases

	Input	Output
Test Case 1	3 2 1 -1	-1 1 2 3
Test Case 2	7 -1 -1 -1 -1 -1 -1 -1	-1 -1 -1 -1 -1 -1 -1 7

unit=189&lesson=190)	Test Case	5 -1 -1 -1 -1 -1	-1 -1 -1 -1 -1 5
<input type="radio"/> FLAMES - Part 02 (unit? unit=189&lesson=191)	Test Case	3 1 4 2 5 0	0 1 2 3 4 5
<input type="radio"/> FLAMES - Part 03 (unit? unit=189&lesson=192)	Test Case	2 1 3 4 -1	-1 1 2 3 4
<input type="radio"/> FLAMES - Part 04 (unit? unit=189&lesson=193)	Test Case	4 7 -1 9 -1 5 3 -1 -1 -1	-1 -1 -1 3 4 5 -1 7 -1 9

- FLAMES - Part 05 (unit? unit=189&lesson=194)
- The due date for submitting this assignment has passed.  
As per our records you have not submitted this assignment.  
Sample solutions (Provided by instructor)

```

1 def fix( A, len):
2     for i in range(0, len):
3         if (A[i] != -1 and A[i] != i):
4             x = A[i];
5             # check if desired place
6             # is not vacate
7             while (A[x] != -1 and A[x] != x):
8                 #store the value from
9                 # desired place
10                y = A[x]
11                # place the x to its correct
12                # position
13                A[x] = x
14                # now y will become x, now
15                # search the place for x
16                x = y
17                # place the x to its correct
18                # position
19                A[x] = x;
20                # check if while loop hasn't
21                # set the correct value at A[i]
22                if (A[i] != i) :
23                    # if not then put -1 at
24                    # the vacated place
25                    A[i] = -1;
26
27 # Driver function.
28 A = []
29 A= list(map(int, input ().split ()))
30
31 fix(A, len(A))
32
33 for i in range(0, len(A)):
34     if(i==len(A)-1):
35         print(A[i],end = '')
36     else:
37         print (A[i],end = ' ')

```

FLAMES - Part 06 (unit? unit=189&lesson=195)

Data Compression - Part 01 (unit? unit=189&lesson=196)

Data Compression - Part 02 (unit? unit=189&lesson=197)

Data Compression - Part 03 (unit? unit=189&lesson=198)

Data Compression - Part 04 (unit? unit=189&lesson=199)

Data Compression - Part 05 (unit? unit=189&lesson=200)

Quiz : Assignment 10 (assessment? name=286)

Programming Assignment-1: Digit (/noc20\_cs35/progassignment? name=315)

Programming Assignment-2: Missing Number (/noc20\_cs35/progassignment? name=316)

**Programming  
Assignment-  
3:  
Rearrangement**  
([noc20\\_cs35/progassignment?  
name=317](https://onlinecourses.nptel.ac.in/noc20_cs35/progassignment?name=317))

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**Week 10  
Feedback**  
([unit?  
unit=189&lesson=318](https://onlinecourses.nptel.ac.in/noc20_cs35/unit=189&lesson=318))

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**Week 11**

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**Week 12**

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