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

<table>
<thead>
<tr>
<th>Test Case</th>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3 2 1 -1</td>
<td>-1 1 2 3</td>
</tr>
<tr>
<td>2</td>
<td>7 -1 -1 -1</td>
<td>-1 -1 -1</td>
</tr>
</tbody>
</table>
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Test Case 3
5 -1 -1 -1 -1
Test Case 4
3 1 4 2 5 0
Test Case 5
2 1 3 4 -1
Test Case 6
4 7 -1 9 -1 5 -1 -1 -1

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

Sample solutions (Provided by instructor)

```python
def fix(A, len):
    for i in range(0, len):
            x = A[i];
            # check if desired place
            # is not vacate
                # store the value from
                # desired place
                y = A[x]
                # place the x to its correct
                # position
                A[x] = x
                # now y will become x, now
                # search the place for x
                x = y
                # place the x to its correct
                # position
                A[x] = x;
            # check if while loop hasn't
            # set the correct value at A[i]
            if (A[i] != i) :
                # if not then put -1 at
                # the vacated place
                A[i] = -1;

    # Driver function.
    A = []
    A= list(map(int, input().split ()))
    fix(A, len(A))

for i in range(0, len(A)):
    if(i==len(A)-1):
        print(A[i],end = ' ')
    else:
        print (A[i],end = ' ')
```

02/07/2020
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Week 11

Week 12

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