

<https://course.acciojob.com/idle?question=91280830-9615-4a5a-a868-07aa3648a4c9>

● EASY

● Max Score: 30 Points

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0-2-1 Sorting

You are given an array `arr` of size `n` that only consists of 0s 1s and 2s. Sort the array in such a way that it has all the 0s first then all the 2s and lastly all the 1s .

Input Format:

line 1: contains an integer `n` denoting number of elements of array.

line 2: contains n separated integers denoting elements of array.

Output Format:

Return the array such that it has all the 0s first then all the 2s and lastly all the 1s.

Example 1

Input

```
7
2 0 1 0 2 1 1
```

Output

```
0 0 2 2 1 1 1
```

Explanation

The required array consist of all the 0s followed by 2s and 1s.

Example 2

Input

```
5
0 1 0 1 1
```

Output

```
0 0 1 1 1
```

Explanation

The required array consist of all the 0s followed 1s.

Constraints

$0 \leq n \leq 10^6$

$0 \leq \text{arr}[i] \leq 2$

Topic Tags

- Arrays

My code

// in java

```
import java.util.*;
```

```
public class Main {
    public static void main(String[] args) throws Throwable {
        Scanner sc = new Scanner(System.in);
        int n = sc.nextInt();
        int arr[] = new int[n];
        for(int i=0;i<n;++i){
            arr[i] = sc.nextInt();
        }
        int[] ans=Sorting021(n,arr);
        for(int i=0;i<n;++i){
            System.out.print(ans[i] + " ");
        }
    }

    static int[] Sorting021(int n,int[] arr){
        int a[]=new int[n];
        int c=0,c1=0,c2=0;
        for(int i=0;i<n;i++)
```

```

        {
            if(arr[i]==0)
                c++;
            else if(arr[i]==1)
                c1++;
            else c2++;
        }
int p=0;
while(c>0)
{
    a[p++]=0;
    c--;
    //System.out.print(0+" ");
}
while(c2>0)
{
    a[p++]=2;
    c2--;
    //System.out.print(2+" ");
}
while(c1>0)
{
    a[p++]=1;
    c1--;
    //System.out.print(1+" ");
}
return a;
// Write your code here
}
}

```