

## Problem 7: Sort the Array of 0s, 1s, and 2s

### Code:

```
#include <stdio.h>

int main() {
    int n;

    printf("Enter number of elements in the array (0s, 1s, 2s only): ");
    scanf("%d", &n);

    int arr[n];

    printf("Enter the elements of the array (0, 1, 2):\n");
    for(int i = 0; i < n; i++) {
        scanf("%d", &arr[i]);
    }

    int count[3] = {0};
    for(int i = 0; i < n; i++) {
        count[arr[i]]++;
    }

    int index = 0;
    for(int i = 0; i < 3; i++) {
        for(int j = 0; j < count[i]; j++) {
            arr[index++] = i; // Fill the array with 0s, 1s, and 2s
        }
    }

    printf("Sorted array:\n");
    for(int i = 0; i < n; i++) {
        printf("%d ", arr[i]);
    }

    return 0;}
```