```c
#include <stdio.h>

// Function to merge two sorted arrays
void merge(int list1[], int size1, int list2[], int size2, int mergedList[]) {
    int i = 0, j = 0, k = 0;

    // Traverse both arrays and copy smaller element to mergedList
    while (i < size1 && j < size2) {
        if (list1[i] < list2[j]) {
            mergedList[k++] = list1[i++];
        } else {
            mergedList[k++] = list2[j++];
        }
    }

    // Copy remaining elements of list1, if any
    while (i < size1) {
        mergedList[k++] = list1[i++];
    }

    // Copy remaining elements of list2, if any
    while (j < size2) {
        mergedList[k++] = list2[j++];
    }
}

int main() {
    int list1[] = {1, 3, 5, 7};
    int size1 = sizeof(list1) / sizeof(list1[0]);

    int list2[] = {2, 4, 6, 8};
    int size2 = sizeof(list2) / sizeof(list2[0]);

    int mergedSize = size1 + size2;
    int mergedList[mergedSize];

    merge(list1, size1, list2, size2, mergedList);

    printf("Merged list: ");
    for (int i = 0; i < mergedSize; i++) {
        printf("%d ", mergedList[i]);
    }
    printf("\n");

    return 0;
}
```