



```
1 // Objective: - Program for Merge Sort
2
3 #include <stdio.h>
4
5 void merge(int arr[], int l, int m, int r)
6 {
7     int i, j, k;
8     int n1 = m - l + 1;
9     int n2 = r - m;
10    int L[n1], R[n2];
11    for (i = 0; i < n1; i++)
12        L[i] = arr[l + i];
13    for (j = 0; j < n2; j++)
14        R[j] = arr[m + 1 + j];
15    i = 0;
16    j = 0;
17    k = l;
18    while (i < n1 && j < n2)
19    {
20        if (L[i] <= R[j])
21        {
22            arr[k] = L[i];
23            i++;
24        }
25        else
26        {
27            arr[k] = R[j];
28            j++;
29        }
30        k++;
31    }
32    while (i < n1)
33    {
34        arr[k] = L[i];
35        i++;
36        k++;
37    }
38    while (j < n2)
39    {
40        arr[k] = R[j];
41        j++;
42        k++;
43    }
44 }
45
46
```

