```c
#include <stdio.h>
#include <stdlib.h>
void mergeSort(int arr[],
int low, int high)
{if (low < high){
int mid = low + (high - low) / 2;
mergeSort(arr, low, mid);
mergeSort(arr, mid + 1, high);
merge(arr, low, mid, high);}}
int merge(int arr[], int low,int mid, int high)
{int i, j, k;
int n1 = mid - low + 1;
int n2 = high - mid;
int Left[n1], Right[n2];
for (i = 0; i < n1; i++)
Left[i] = arr[low + i];
for (j = 0; j < n2; j++)
Right[j] = arr[mid + 1 + j];
i = 0;
j = 0;
k = low;
while (i < n1 && j < n2)
{if (Left[i] <= Right[j])
{arr[k] = Left[i];
i++;}
else
{ arr[k] = Right[j];
   j++;}
   k++;}
while (i < n1) {
arr[k] = Left[i];
```

```c
i++;

k++;}

while (j < n2){

arr[k] = Right[j];

j++;

k++;}}

int main()

{int arr[50];

int arr_size;

printf("enter total number of items \n");

scanf("%d",&arr_size);

printf("enter the items in a array\n");

for(int i=0;i<arr_size;i++){

scanf("%d",&arr[i]);}

mergeSort(arr, 0, arr_size - 1);

printf("\nSorted array is \n");

for(int i=0;i<arr_size;i++){

printf("%d ",arr[i]);}

return 0;}
```

```
   12 | merge(arr, low, mid, high);
      | ^~~~~
enter total number of items
6
enter the items in a array
4
6
3
8
2
7

Sorted array is
2 3 4 6 7 8

...Program finished with exit code 0
```