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#include<stdio.h>
#include<conio.h>

void main(){
 void print(int[],int);
 int merge_sort (int[],int,int);
 void merge(int[],int,int,int);
  int n,i,count=0,arr[100];
  clrscr();

 printf("\nEnter the number of element you want to enter");
  scanf("%d",&n);
 count++;

    printf("\n Enter element in array:-\n");
 for(i=0;i<n;i++){
 count++;
 scanf("%d",&arr[i]);

 }


int count1=  merge_sort (arr,0,n);
print(arr,n);

int sum=count+count1;
printf ("\n The Counting value is :- %d",sum);
}

void merge(int arr[], int p, int m, int r){
     // int count=0;
 int i, j, k;
 int n1 = m - p+ 1;
 int n2 = r - m;


 int L[50], R[50];

 for (i = 0; i < n1; i++){
       //  count++;
  L[i] = arr[p + i];
      }
 for (j = 0; j < n2; j++)  {
  // count++;
  R[j] = arr[m + 1+ j];
      }

i = 0;
j = 0;
k = p;
while (i < n1 && j < n2){
      // count++;
 if (L[i] <= R[j]){
  arr[k] = L[i];
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 i++;
 }
 else{
  arr[k] = R[j];
  j++;
 }
 k++;
}

while (i < n1){
 //count++;
 arr[k] = L[i];
 i++;
 k++;
}

while (j < n2){
      // count++;
 arr[k] = R[j];
 j++;
 k++;
}

}




  int merge_sort(int arr[], int p, int r)
{    int count=0;
if (p < r)
{

int m = p+(r-p)/2;
count++;

merge_sort(arr, p, m);
count++;
merge_sort(arr, m+1, r);


count++;
merge(arr, p, m, r);
}
return count;
}
void print(int arr[],int n){

 int i;
 for(i=0;i<n;i++){
  printf("%d->",arr[i]);
 }
}
```