

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

class merge
{
    int a[10],n;
public:

    void read();
    void merge_sort(int l,int h);
    void merge1(int l,int m, int h);
    void disp();
};

void merge::read()
{
    cout<<"\n How many Elements you want to store:\n";
    cin>>n;
    cout<<"\n Enter elements \n";
    for(int i=1;i<=n;i++)
        cin>>a[i];
    merge_sort(1,n);
}

void merge::merge_sort(int l,int h)
{
    int mid;
    if(l<h)
    {
        mid=int((l+h)/2);
        merge_sort(l,mid);
        merge_sort(mid+1,h);
        merge1(l,mid,h);
    }
}

void merge::merge1(int low,int mid,int high)
{
    int b[10];
    int i=low;
    int k=low;
    int j=mid+1;

    while((i<=mid)&&(j<=high))
    {
        if(a[i]<=a[j])//Change a[i]>=a[j] for descending
        {
            b[k]=a[i];
            i++;
            k++;
        }
        else
```

```

        {
            b[k]=a[j];
            j++;
            k++;
        }
    }
    if(i>mid)
    {
        while(j<=high)
        {
            b[k]=a[j];
            j++;
            k++;
        }
    }
    else
    {
        while(i<=mid)
        {
            b[k]=a[i];
            i++;
            k++;
        }
    }

    for(int k1=low;k1<=high;k1++)
        a[k1]=b[k1];
}

void merge::disp()
{
    for(int i=1;i<=n;i++)
        cout<<a[i]<<"\t";
}

void main()
{
    clrscr();
    merge m;
    m.read();
    cout<<"\nAfter Sorting\n";
    m.disp();
    getch();
}

*/ Output */

How many Elements you want to store:
5

Enter elements
12 -34 5 67 -8

After Sorting
-34      -8      5      12      67

```