

```

#include<stdio.h>
#include<conio.h>
#include<stdlib.h>
#include<alloc.h>
void merge(int x[ ],int n)
{
int aux[100],l1,l2,u1,u2,i,j,k,size;
size=1;
while(size<n)
{
    l1=0;k=0;
    while(l1+size<n)
    {
        l2=l1+size;
        u1=l2-1;
        u2=(l2+size-1<n)?l2+size-1:n-1;
        for(i=l1,j=l2;i<=u1&& j<=u2;k++)
        {
            if(x[i]<=x[j])
                aux[k]=x[i++];
            else
                aux[k]=x[j++];
        }
        for(;i<=u1;k++)
            aux[k]=x[i++];
        for(;j<=u2;k++)
            aux[k]=x[j++];
        l1=u2+1;
    }
    for(i=l1;i<=n;i++)
        aux[k++]=x[i];
    for(i=0;i<n;i++)
        x[i]=aux[i];

    size=size*2;
    printf("END of PASS output:\n");
    for(i=0;i<n;i++) printf("%d\t",x[i]);
    printf("\n");
}
}

```

```

void main( )
{
int *info,n,i;
clrscr();

printf("feed no of data items\n");
scanf("%d",&n);
info=(int *)malloc(sizeof(int)*n);

printf("feed in the values\n");
for(i=0;i<n;i++)
    scanf("%d",&info[i]);

merge(info,n);

printf("the list data is as follows\n");
for(i=0;i<n;i++)
    printf("%d\t",info[i]);
getch();
}

```

