Heap sort

```
#include <stdio.h>
 main()
{
     int a[50],i,n,c,root,t,j;
     printf("Enter total number of elements:");
     scanf("%d", &n);
     printf("Enter the elements:\n");
     for(i = 0; i < n; i++)
            scanf("%d", &a[i]);

  j=n;

  while(j>0)
  {

   for(i=1;i<j;i++)
   {
                        c=i;
do
{
root=(c-1)/2;
if(a[root] < a[c])
{
t=a[root];
a[root]= a[c];
a[c]=t;
}
c=root;
}while(c!=0);
   }
```

```
        printf("The MAX - Heap array:\n");
        for(i = 0;i < j; i++)
                printf("%d\t", a[i]);

t=a[0];
a[0]=a[j-1];
a[j-1]=t;


j--;
}


    printf("\nAfter Heap sort:\n");
    for(i = 0;i < n; i++)
                printf("%d\t", a[i]);
}
```

Output: