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

int hsort[25],n,i;

void adjust(int,int);
void heapify();

void main()
{
int temp;
clrscr();
printf("\n\t\t\tHEAP SORT");
printf("\n\t\t\t**** **\n\n");
printf("\nenter no of elements:");
scanf("%d",&n);
printf("\nenter elements to be sorted\n\n");

for(i=1;i<=n;i++)
scanf("%d",&hsort[i]);
heapify();

for(i=n;i>=2;i--)
{
temp=hsort[1];
hsort[1]=hsort[i];
hsort[i]=temp;
adjust(1,i-1);
}

printf("\nSORTED ELEMENT\n\n");
for(i=1;i<=n;i++)
printf("%d\n",hsort[i]);
getch();
}

void heapify()
{
int i;
for(i=n/2;i>=1;i--)
adjust(i,n);
}

```

```
void adjust(int i,int n)
{
int j,element;
j=2*i;
element=hsort[i];
while(j<=n)
{
if((j<n)&&(hsort[j]<hsort[j+1]))
j=j++;
if(element>=hsort[j])
break;
hsort[j/2]=hsort[j];
j=2*j;
}
hsort[j/2]=element;
}
```

-->>SAMPLE INPUT AND OUTPUT:

Enter No Of Elements:5

Enter Elements To Be Sorted

5
4
3
2
1

Sorted Element

1
2
3
4
5