**Implementing Max Heap**

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**\* C++ Program to Implement Max Heap**

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**#include <iostream>**

**#include <conio.h>**

**using namespace std;**

**void max\_heapify(int \*a, int i, int n)**

**{**

**int j, temp;**

**temp = a[i];**

**j = 2 \* i;**

**while (j <= n)**

**{**

**if (j < n && a[j+1] > a[j])**

**j = j + 1;**

**if (temp > a[j])**

**break;**

**else if (temp <= a[j])**

**{**

**a[j / 2] = a[j];**

**j = 2 \* j;**

**}**

**}**

**a[j/2] = temp;**

**return;**

**}**

**void build\_maxheap(int \*a,int n)**

**{**

**int i;**

**for(i = n/2; i >= 1; i--)**

**{**

**max\_heapify(a,i,n);**

**}**

**}**

**int main()**

**{**

**int n, i, x;**

**cout<<"enter no of elements of array\n";**

**cin>>n;**

**int a[20];**

**for (i = 1; i <= n; i++)**

**{**

**cout<<"enter element"<<(i)<<endl;**

**cin>>a[i];**

**}**

**build\_maxheap(a,n);**

**cout<<"Max Heap\n";**

**for (i = 1; i <= n; i++)**

**{**

**cout<<a[i]<<endl;**

**}**

**getch();**

**}**