

Implementing Max Heap

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/*  
* C++ Program to Implement Max  
Heap  
*/  
#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;  
}
```

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}  
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;  
    }  
}
```

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    getch();  
}
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