

Max Heap Insertion-

// Online C++ compiler to run C++ program online

```
#include <iostream>
```

```
using namespace std;
```

```
class MaxHeap{
```

```
    int * arr;
```

```
    int size;      //total elements in the heap
```

```
    int total_size; //total size of an array
```

```
public:
```

```
MaxHeap(int n){
```

```
    arr=new int [n];
```

```
    size=0;
```

```
    total_size=n;
```

```
}
```

```
void Insert(int value){
```

```
    if(size==total_size){
```

```
        cout<<"overflow"<<endl;
```

```
        return;
```

```
    }
```

```
    arr[size]=value;
```

```
    int i=size;
```

```
    size++;
```

```
    while(i > 0 && arr[(i-1)/2] < arr[i]){
```

```
        swap(arr[i],arr[(i-1)/2]);
```

```
        i=(i-1)/2;
```

```
    }
```

```
}
```

```
void print(){
```

```
    for(int i=0;i<size;i++){
```

```
        cout<<arr[i]<<" ";
```

```
    }
```

```
    cout<<endl;
```

```
}  
};
```

```
int main() {  
    MaxHeap a(9);  
    a.Insert(14);  
    a.Insert(24);  
    a.Insert(12);  
    a.Insert(11);  
    a.Insert(25);  
    a.Insert(8);  
    a.Insert(35);  
    a.print();  
  
    return 0;  
}
```

Output-

35 24 25 11 14 8 12

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