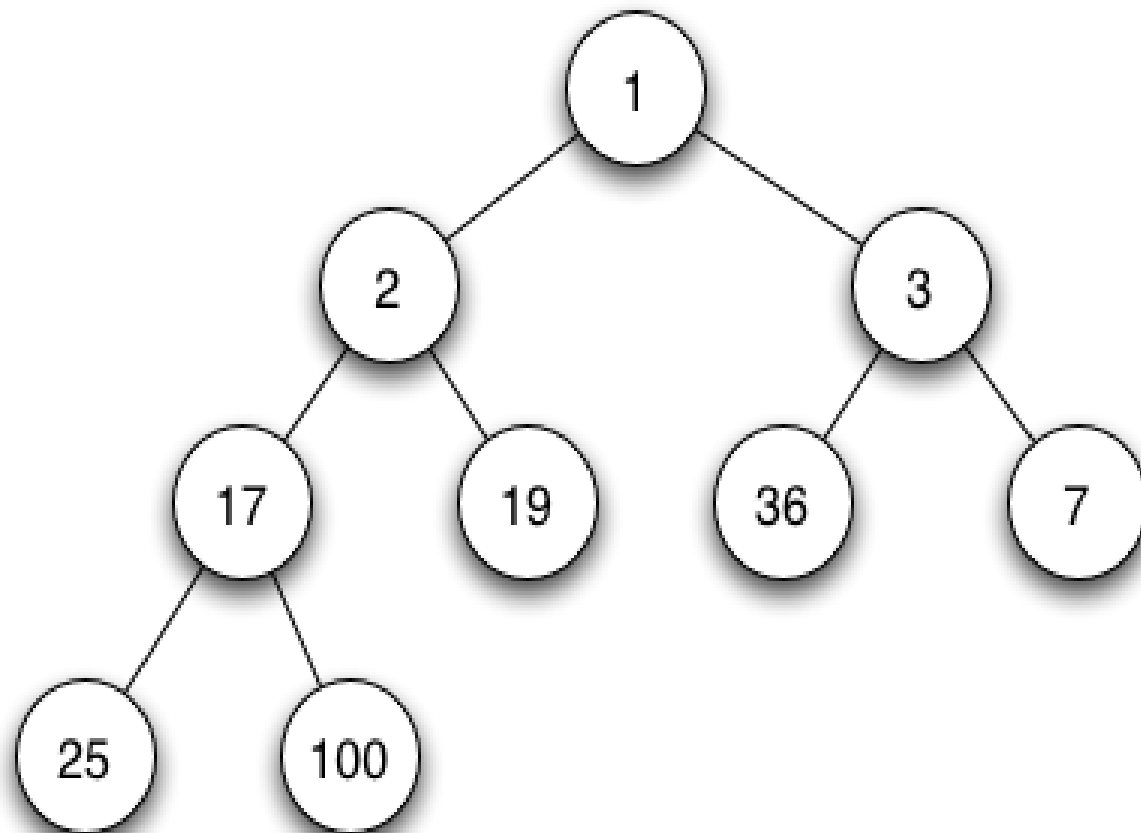C++

LAUNCHPAD

CODING BLOCKS

HEAPS

- Priority Queues
- Heaps

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How to find min/max out of some elements?

CODING BLOCKS

ALGORITHM	INSERT	SEARCH	FIND_MIN	DELETE MIN
Unsorted Array				
Sorted Array				
Unsorted Linked List				
Heap				

Heaps

Heap Data Structure

1. Binary Tree
2. Complete Binary Tree Property
3. Heap Order Property

CODING BLOCKS

What is the height of a complete binary tree?

Complete Binary Tree

1. Add
2. Remove

Priority Queues

Priority Queues

```
Class PriorityQueue{
    // accessor methods
    int size();
    bool isEmpty();
    T min();
    // update methods
    void insert(int priority, T value);
    void removeMin();
}
```

How to implement a complete binary tree

How to implement Heap using CBT?

1. Min
2. Insertion
3. removeMin

CODING BLOCKS

Heap Sort

Heap Sort is O(nLogN)

Thank You!

Deepak Aggarwal