Heap

1> Heap is a complete binary tree.

A complete binary tree is a tree where each node has exactly 2 children except the last level nodes. Last level can have one child but condition is that it should start from left.

Types: 1) Max Heap:

It is a heap where all child node’s values are always smaller than parent node.

2) Min Heap:

It is a heap where all child node’s values are always bigger than parent node.

If there are n Nodes in a heap then it’s height will be log(n) as it is represented as a complete binary tree.

2> Heap Formulae:

1. Node = i;
2. Parent[i] = floor (i/2);
3. LeftChild[i] = i\*2;
4. RightChild[i] = i\*2+1;