**Tree Dictionary**

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| **Definitions:**   * **Depth of a node:** The number of edges from the root to the node. * **Height of a node:** The number of edges from the node to the leaf. * **Height of a tree**: The height of the root. * **Binary Tree:** Each node has *at most* two children. * **Full Binary Tree (or 2-Tree, strictly binary tree, or proper binary tree):** Every node has either zero or two children.      * **Complete Binary Tree:** A binary tree, which is completely filled, with the possible exception of the bottom level (can have one node child), which is filled from left to right.      * **Perfect Binary Tree:** A full binary tree where all the leaf nodes have the same depth.      * **Binary Search Trees:** Also called order binary trees or sorted binary trees. These are structured such that numbers smaller than the current node appear in the left side of its lineage and numbers greater than the current node appear in the right.   [https://upload.wikimedia.org/wikipedia/commons/thumb/d/da/Binary_search_tree.svg/200px-Binary_search_tree.svg.png](https://en.wikipedia.org/wiki/File:Binary_search_tree.svg)   * **Heaps:** Heaps are a generalized term for max heap and min heap. * **Max Heap:** A heap such that parent nodes have values that are always greater than or equal to those of the children. The highest valueis in the root node.   [https://upload.wikimedia.org/wikipedia/commons/thumb/3/38/Max-Heap.svg/240px-Max-Heap.svg.png](https://en.wikipedia.org/wiki/File:Max-Heap.svg)   * **Min Heap:** A heap such that parent nodes have values that are less than or equal to those of the children. The lowest value is in the root node. * **Red Black Trees:** A red–black tree is a type (or a way of) implementing a [self-balancing binary search tree](https://en.wikipedia.org/wiki/Self-balancing_binary_search_tree). Each node of the binary tree has an extra bit, and that bit is often interpreted as the color (red or black) of the node. These color bits are used to ensure the tree remains approximately balanced during insertions and deletions.They satisfy the properties below:   **1)** Every node has a color either red or black.  **2)** Root of tree is always black.  **3)** A red node cannot have a red parent or red child.  **4)** Every path from root to a NULL node has same number of black nodes.  http://www.geeksforgeeks.org/wp-content/uploads/RedBlackTree.png   * **B-Trees:** * **B+ Trees:** * **Tries** (Also Known as Radix Trees, Prefix Trees, Digital Trees): * **AVL Trees:** |