

Data Structures and Algorithms

Exercises Week 11

1. Define
 - (a) multi-way tree,
 - (b) multi-way search tree,
 - (c) (2,4) tree.
2. Construct a (2,4) tree, beginning with the empty tree and then inserting, one by one, the keys 01 to 32.
3. In the (2,4) tree resulting from Exercise 2
 - (a) what is the height of the tree?
 - (b) how many nodes are there of each degree?
4. Starting with the (2,4) tree resulting from Exercise 2, delete the first 10 keys (i.e. 01 to 10), one by one.