

The tree in Figure 9.16 is not a B-tree, since some nodes have empty children, and the leaves are not all on the same level. Figure 9.17 shows a B-tree of order 5 whose keys are the 26 letters of the alphabet.

9.4.4 Insertion into a B-tree.

The condition that all leaves be on the same level forces a characteristic behavior of B-trees: In contrast to binary search trees, B-trees are not allowed to grow at their

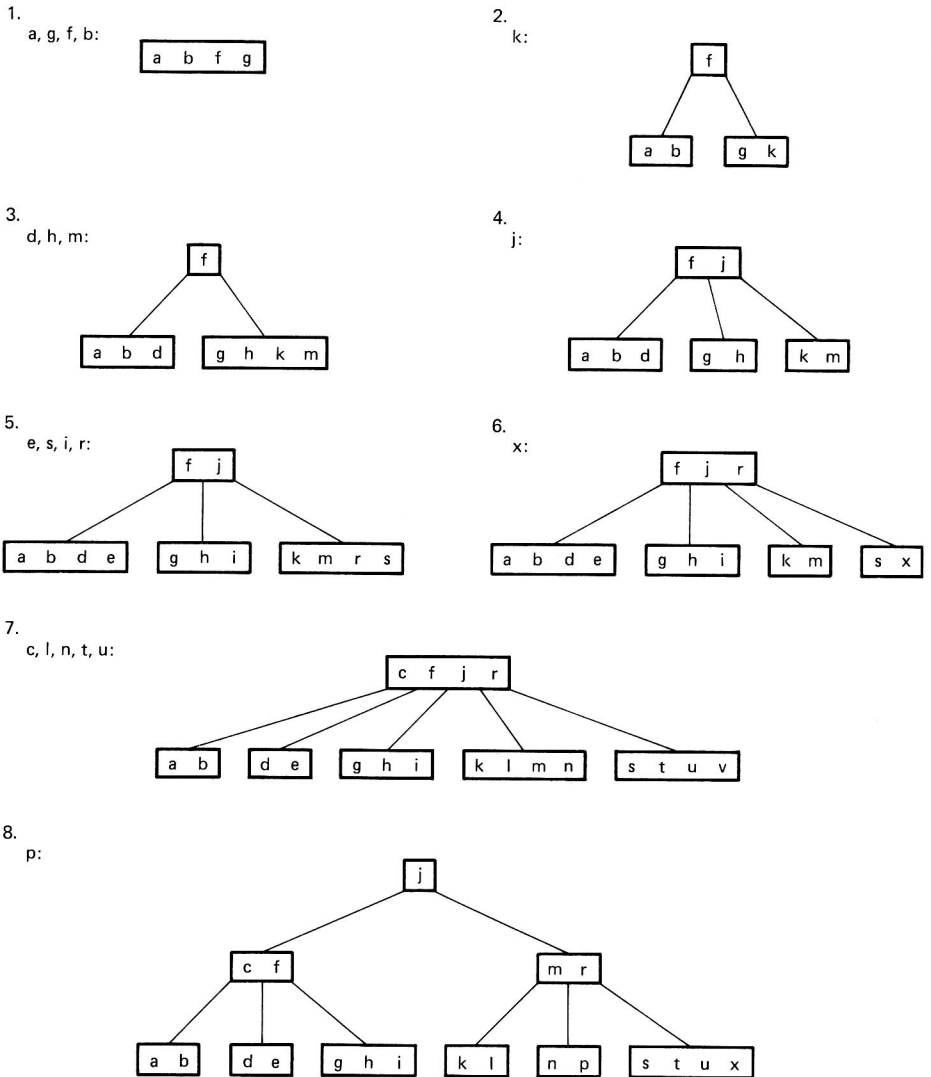
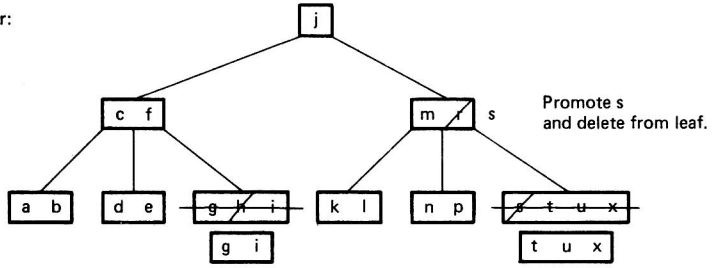
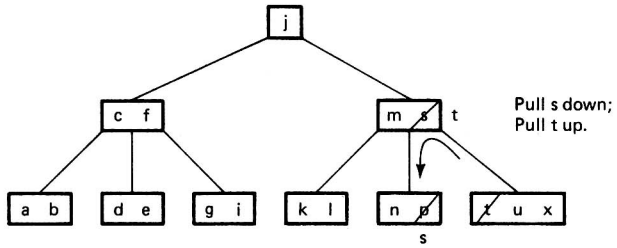


Figure 9.18. Growth of a B-tree

1. Delete h, r:

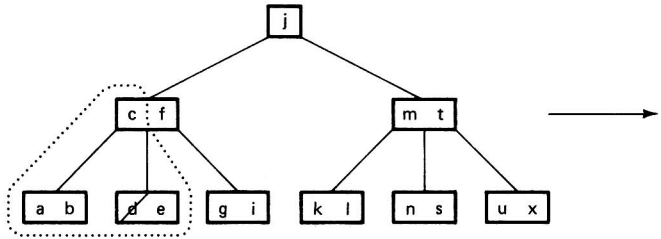


2. Delete p:



3. Delete d:

Combine:



Combine:

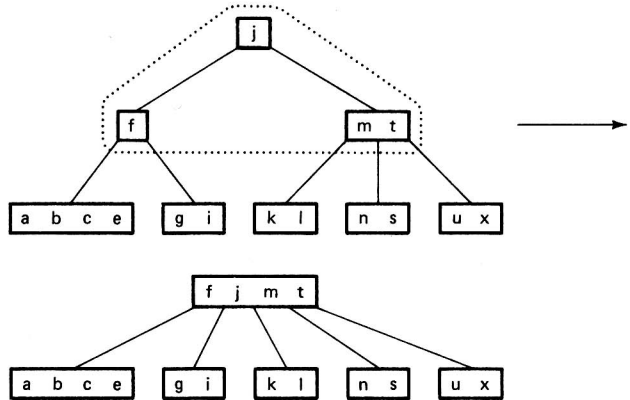


Figure 9.20. Deletion from a B-tree