

CHAPTER 11

DISCUSSIONS 2

Discussion 11-7

Construct a B+-tree for the following set of key values in order of insertion. Assume that the tree is initially empty and 4 pointers (and 3 key values) fit in one node.

28, 11, 17, 3, 5, 31, 2, 19, 23, 7, 25

Discussion 11-8

From the constructed B+-tree, delete the following values in order.

28, 31, 19, 23

Discussion 11-9

What is the *complexity of a B+-tree update*? (Insertion and deletion)

Discussion 11-10

What would the occupancy of each leaf node of a B+-tree be, if index entries are inserted in sorted order? For example, 1, 2, 3, ..., 100, 101, ...

- Explain why.

Discussion 11-11

Suggest an efficient way of building a B+-tree index for an existing table? (eg., a new index on *phone_number* attribute for the *customer* table that already has 1M records)