Lecture 8 - B+ Tree Insertion Exercise

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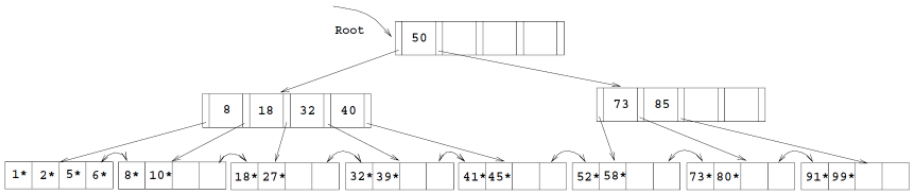

Figure 1: B+ Tree

Consider the B+ tree index of order $d = 4$ shown in Figure 3.

$d = 4$ refers to the order, meaning the maximum number of keys a node can have. The minimum number of keys for a node is $d/2$.

1. Show the B+ tree that would result from inserting a data entry with key 9 into this tree.
2. Show the B+ tree that would result from inserting a data entry with key 3 into the original tree.

Solution

1. Show the B+ tree that would result from inserting a data entry with key 9 into this tree:

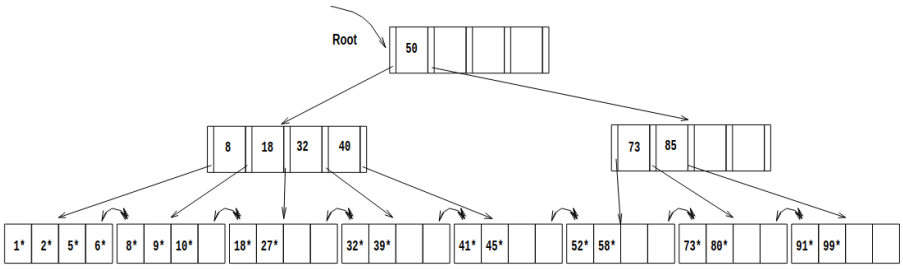

Figure 2: B+ Tree

2. Show the B+ tree that would result from inserting a data entry with key 3 into the original tree.

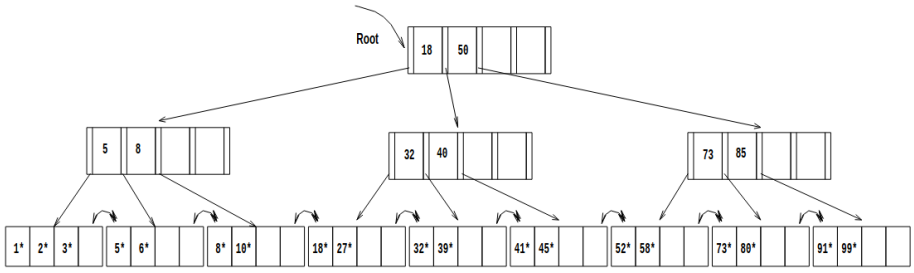

Figure 3: B+ Tree