

1. List the members of your group below:

2. Depict the result of inserting the following keys, in the order presented, into an initially empty **B-tree** with parameters $M = 4$ and $L = 3$, based on the definitions and methods in the textbook.¹ (The tree is thus a B^+ -tree.)

50, 40, 60, 70, 65, 75, 62, 63, 41, 42, 51, 52, 53, 54

Depict some intermediate states of the tree, including at least the states after each node-splitting operation.

Similarly, depict the result of deleting the following keys, in this order, depicting at least the intermediate states after each node-merging operation:

52, 63, 40, 41

¹Mark Allen Weiss, *Data Structures and Problem Solving Using Java*, 3rd edition (Addison-Wesley, 2006), §19.8.

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