

B-tree and B+-tree

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Binary search

• Given n items in a sorted list, how do you find target?

• What if the items are not sorted?



Binary search tree (BST)

• Organize the items in a binary tree

• What if the item is (key, data) pair?



Pros and Cons of BST

• Pros:

• Cons:





• Each non-leaf node has 2 or 3 children

• What is the price?



B-tree

Generalized 2-3 tree

 Each non-leaf node has k to (2k+1) children



B+-tree

Keep the keys in the non-leaf nodes

• All the data in the leaf nodes

• All the "locations" in the leaf nodes

