Tries

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KTH

HT23

Binary trees

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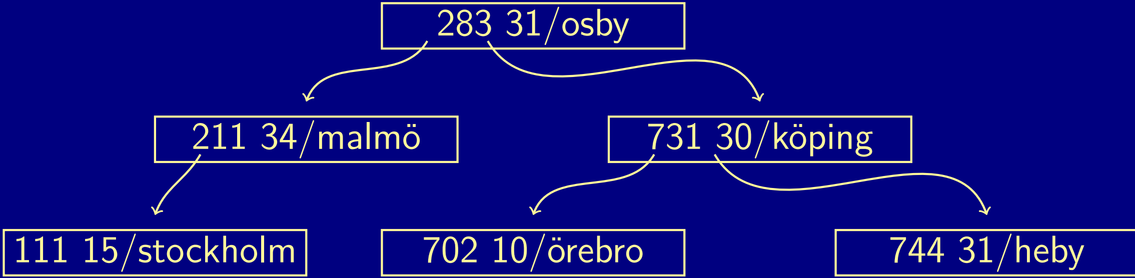
- heap, access highest priority in $O(1)$, add and remove in $O(lg(n))$
- more advanced version to keep balanced
- could be implemented using an array

typical usage



k-arry trees

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A tree with more than two branches in a node.

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more of the same

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more of the same

keys and values are present in each node of the tree

what if...

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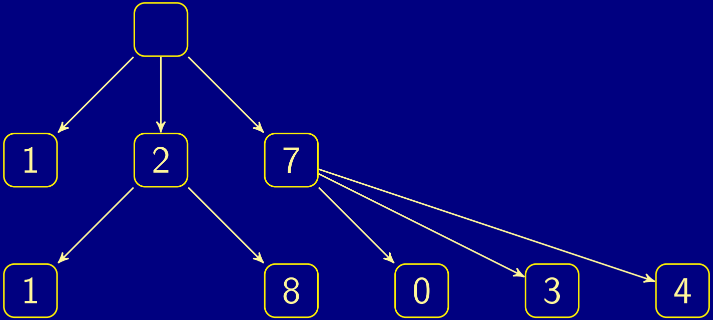
The keys are implicit in the path from the root to the node of the value.

the path is the key



let's do like this

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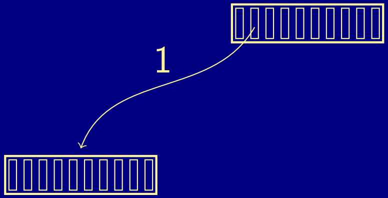

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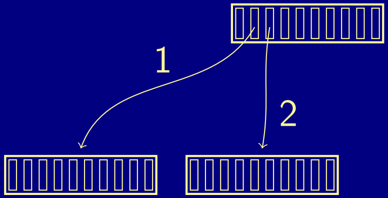

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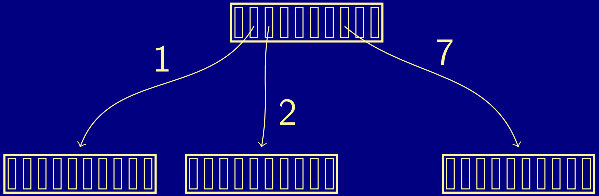

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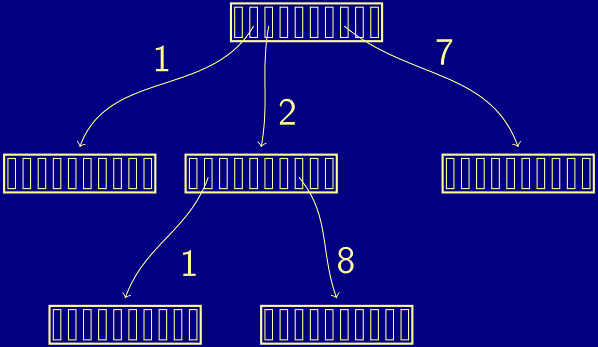

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- dictionary, each level is a character, a path is a word
- words will share paths: small, small-e-r, small-e-s-t

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The original key is not given by the path.