Binary search algorithm (page 58 K&R)

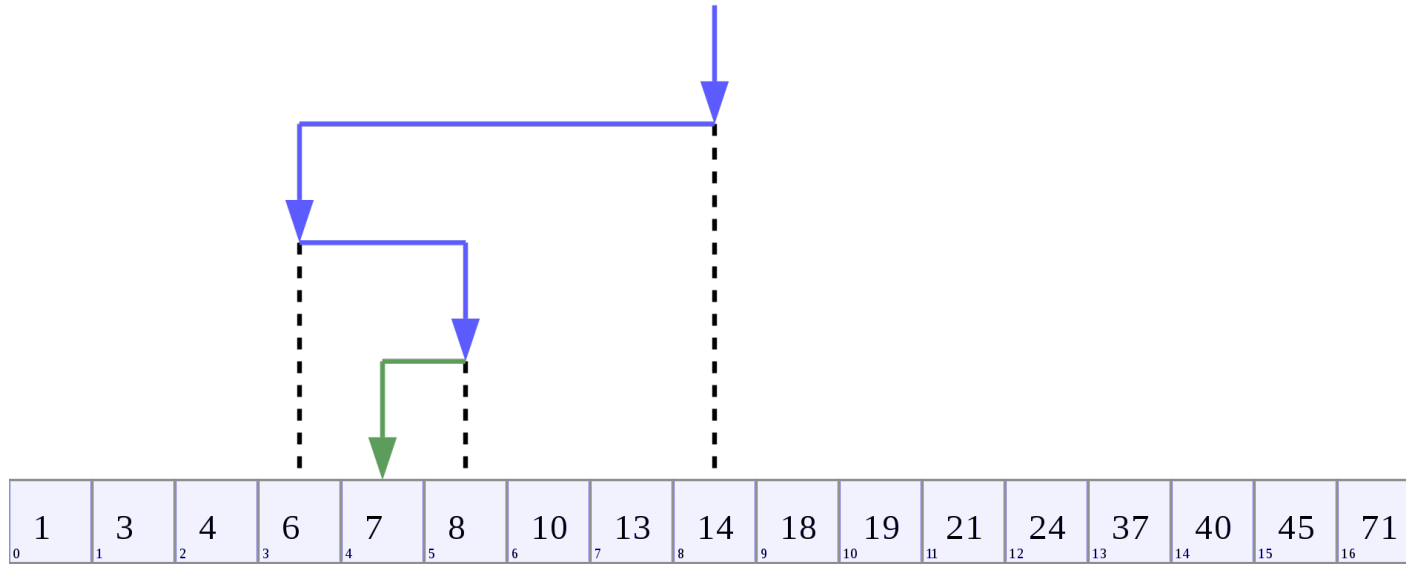| 1	3	4	6	7	8	10	13	14	18	19	21	24	37	40	45	71
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

The algorithm finds the position of a target value within a sorted array.
In the example, 7 is the target value.
It makes $O(log_2 N)$ comparison with N the number of elements of the array.
What about linear search? Is it faster or slower? For any N?

Specialized data structures designed for fast searching

It is a rooted binary tree whose internal nodes each store a key greater than all the keys (values) in the node's left subtree and less than those in its right subtree.
BST allows search, addition and removal of data items.

Performance ?
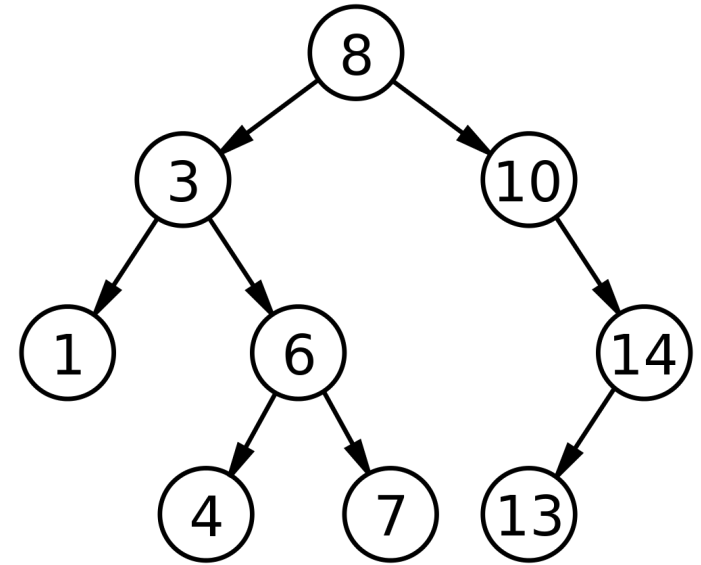
Sketch of a binary search tree (BST)