

## Abori binari. Arbori binari de căutare

### Bibliografie

- <https://web.stanford.edu/class/archive/cs/cs161/cs161.1168/lecture8.pdf> (similar Cormen)
- <https://www.geeksforgeeks.org/binary-search-tree-data-structure/?ref=lbp>
- <https://algs4.cs.princeton.edu/32bst/> - si cartea Algorithms,  
<https://algs4.cs.princeton.edu/lectures/keynote/32BinarySearchTrees.pdf>

### Probleme

1. <https://leetcode.com/problems/binary-tree-preorder-traversal/> și nerecursiv
2. Parcurgerea unui arbore binar pe niveluri – laboratorul 2  
<https://leetcode.com/problems/binary-tree-level-order-traversal/description/>
3. Implementați operațiile de bază pentru un arbore binar de căutare **recursiv/nerecursiv**
  - Inserarea unei valori date  
<https://leetcode.com/problems/insert-into-a-binary-search-tree/>  
<https://www.techiedelight.com/?problem=InsertKeyIntoBST>
  - Parcurgerea în inordine  
<https://www.pbinfo.ro/probleme/3010/bst>
  - Căutarea unei valori date  
<https://www.techiedelight.com/?problem=SearchKeyInBST>
  - Determinarea valorii minime și maxime din arbore
  - Determinarea celei mai apropiate valori mai mare/mai mică decât o valoare dată (succesor / predecesor în inordine)  
<https://www.techiedelight.com/?problem=InorderPredecessorBST>  
<https://www.techiedelight.com/?problem=InorderSuccessorBST>
  - Ștergerea valorii minime
  - Ștergerea unei valori date  
<https://leetcode.com/problems/delete-node-in-a-bst/>  
<https://www.techiedelight.com/?problem=DeleteKeyFromBST>
4. <https://leetcode.com/problems/range-sum-of-bst/description/>
5. <https://leetcode.com/problems/maximum-depth-of-binary-tree/>
6. <https://leetcode.com/problems/balanced-binary-tree/>
7. [leetcode.com/problems/lowest-common-ancestor-of-a-binary-search-tree/](https://leetcode.com/problems/lowest-common-ancestor-of-a-binary-search-tree/)
8. <https://www.techiedelight.com/?problem=LowestCommonAncestorII> (similar cu 6, dar aici nodurile pot sa nu fie în arbore)
9. <https://leetcode.com/problems/construct-binary-tree-from-preorder-and-inorder-traversal/description/> (divide et impera)