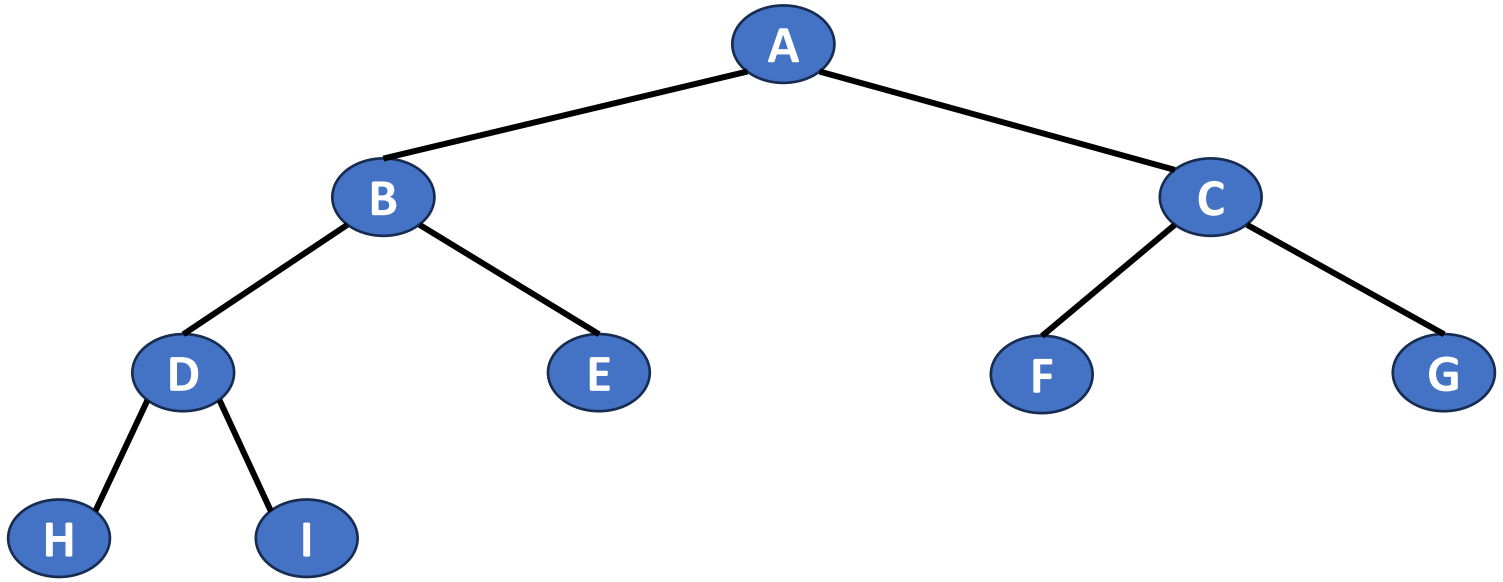
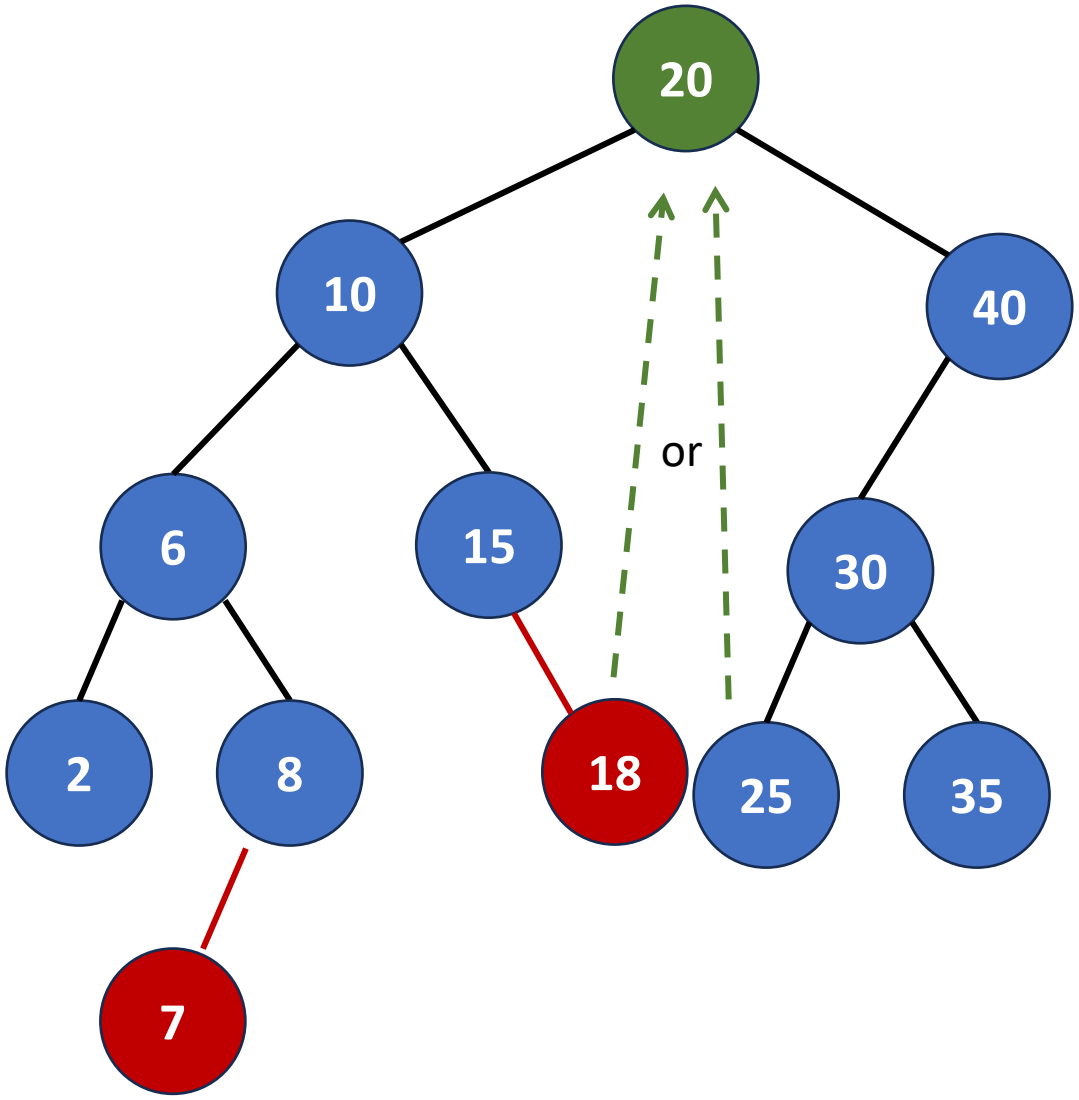
Binary tree traversal

- Q1: Write out the inorder traversal HDIBEAFCG
- Q2: Write out the preorder traversal ABDHIECFG
- Q3: Write out the postorder traversal HIDEBFGCA
- Q4: Write out the level-order traversal. ABCDEFGHI



Binary search tree



Q5: Where will you insert a pair whose key is 7?

Q6: Where will you insert a pair whose key is 18?

Q7: The time complexity of insertion in binary search trees.

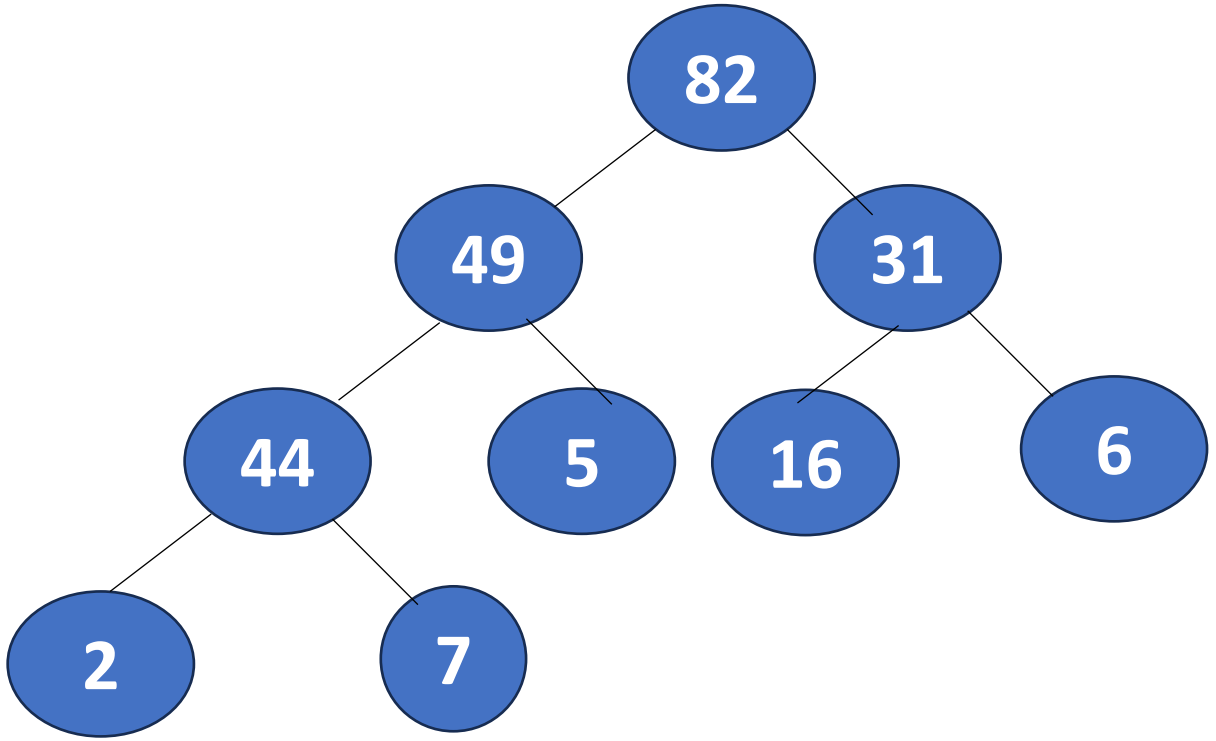
O(height) = O(n)

Q8: Describe the steps to delete the node containing 20.

Heap

- Given the following key values: 7, 16, 49, 82, 5, 31, 6, 2, 44
  - Q9: Write out the **max** heap after inserting all elements.

  Note: Please use array representation for the max heap.



Heap

- Given the following key values: 7, 16, 49, 82, 5, 31, 6, 2, 44
  - Q10: Write out the **min** heap after inserting all elements.

  Note: Please use array representation for the max heap.