No.
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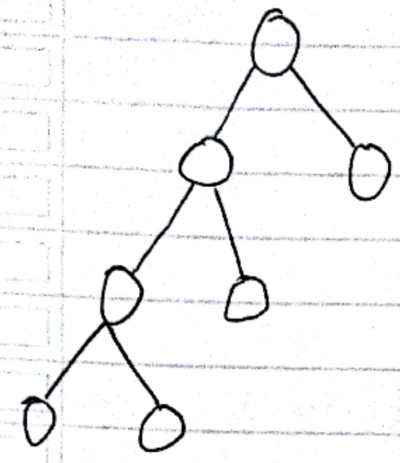
Individual Assignment

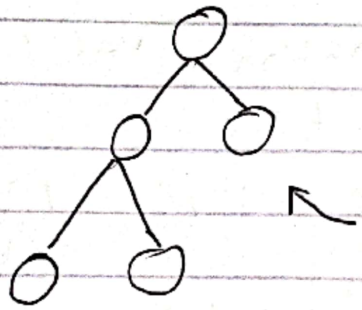
1. Linear = Memiliki index yang terurut dan bisa di tembak (kadang)
   contohnya : array, linked list
   Non-linear = tidak memiliki index yang terurut
   contohnya : tree

2. Base root = node yang paling atas / paling awal dari sebuah tree
   Key = Sebuah data yang menjadi patokan
   Edge = Sebuah pointer penghubung antara parent dan anak left / rightnya
   Sibling = dua buah node yang berasal dari parent yang sama
   Parent = node atas dari dua buah child kiri dan kanan.
   Child = node cabang dari node atas (contoh di posisi kiri / kanan)
   Leaf = node terakhir yang pointer ↓ cabangnya bernilai NULL.

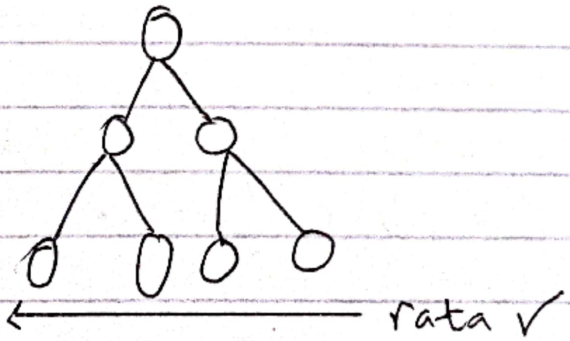
3. Full = 0 / 2 anak



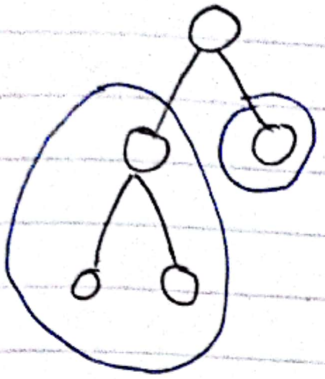
Complete = Harus memiliki anak semua kecuali level terakhir



Perfect = 2 anak wajib



4. Balance factor (BF) = |tinggi (root → left) - tinggi (root → right)|



Bf = 2 - 1
= 1 (balanced)

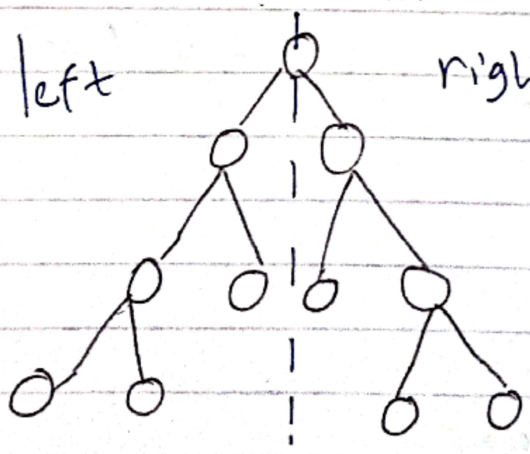
Balance
Bf. ≤ 1

Unbalance
Bf > 1

5. Number of nodes
1) Max nodes at level k (k from 0) = 2^k
2) Max nodes in a tree with level k = $2^{k+1} - 1$
Height of tree
3) Min level for n nodes } $^2\log n$
4) Max level for n nodes }

6. Child left = 2(p) + 1
Child right = 2(p) + 2 } in array indexing

7. Membagi dua tree kiri dan kanan

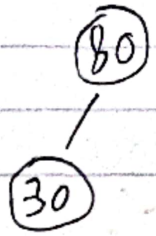


inorder successor = angka terkecil pada tree kanan sebagai pengganti root.
inorder predecessor = angka terbesar pada tree kiri sebagai pengganti root.

8. Insert 80

Bf=0 (bal)

Ins 30

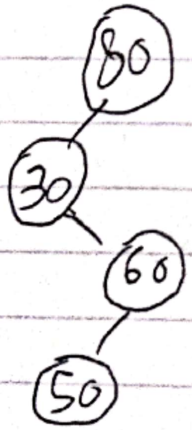


Bf = 1 - 0
= 1 (bal)

Ins 60

Bf = 2 - 0
= 2 (un)

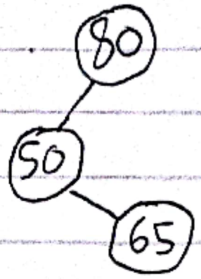
Ins 50



Bf = 3 - 0
= 3 (un)

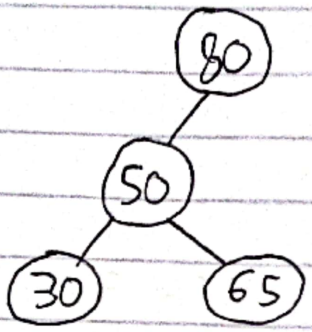
Un = unbalanced
Bal = balanced

Ins 65



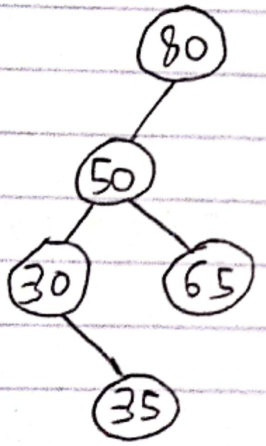
Bf = 2-0
= 2 (un)

Ins 30



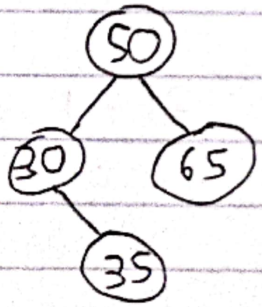
Bf = 2-0
= 2 (un)

Ins 35



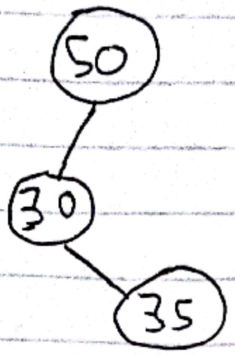
Bf = 3-0
= 3 (un)

Del 80



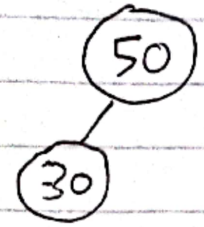
Bf = 2-1
= 1 (bal)

Del 65



BF = 2 - 0
= 2 (un)

Del 35



Bf = 1 - 0
= 1 (bal)

Hasil akhir →