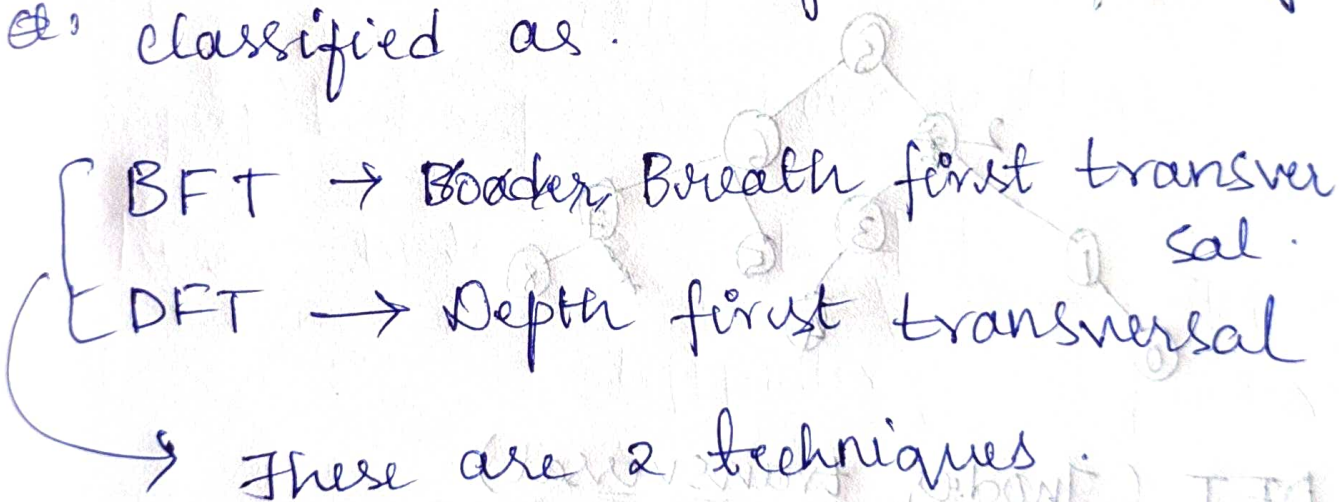
Transversal techniques in trees.

~~Transverse~~

* Transverse means visiting a node/element in a oder.
* for linear data structures like arrays, lists, stack queues there is on one possible way
* But for trees there are many ways.
* On this basis they are broadly classified as.



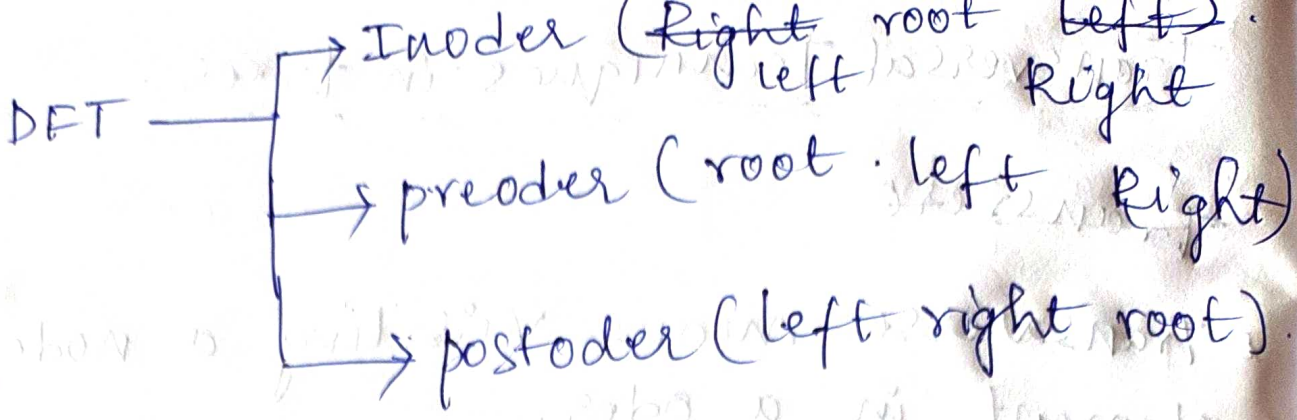
BFT → Boader, Breath first transversal.

DFT → Depth first transversal

→ These are 2 techniques.

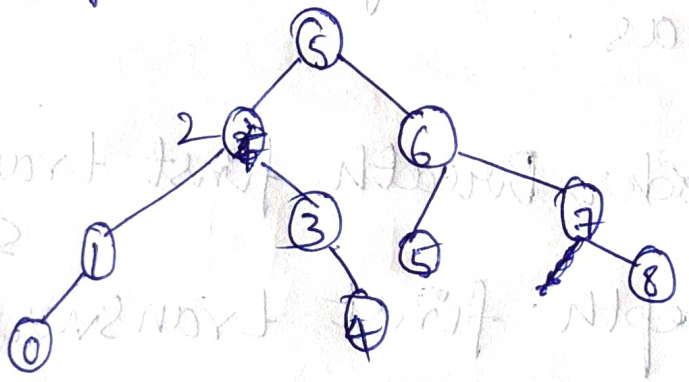
* DFT

Here DFT is also broadly classified as 3 groups.



* The basic fundmental is transversal techniques is we should divide a tree into maximum possible small sub trees and apply the rule

* Eg



DFT (Inoder transversal)

left root right

⇒ 0 1 2 3 4 5 5 6 7 8

DFT (preoder transversal)

root left righ

⇒ 5 2 1 0 3 4 6 5 7 8

DFT (post oder transversal)

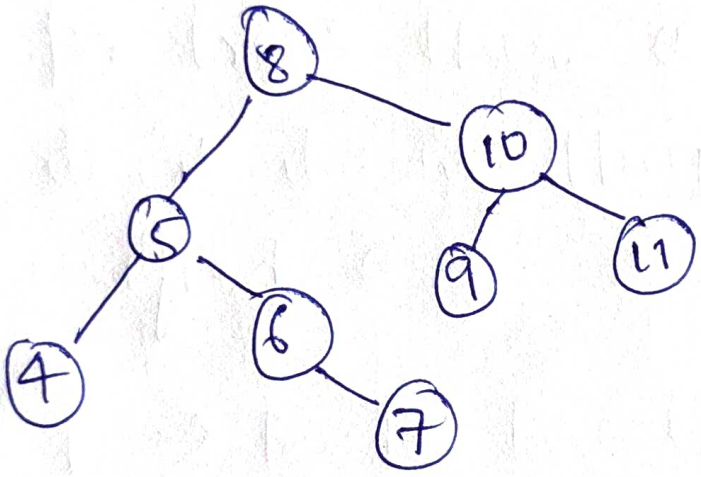
left righ root.

⇒ 0 1 4 3 2 5 8 7 6.

* BFT (breathe trans first transversal)

This is quite easy for us compared to DFT.

Eg



BFT is written on the basis of lev

⇒ 8 5 10 4 6 9 11 7.