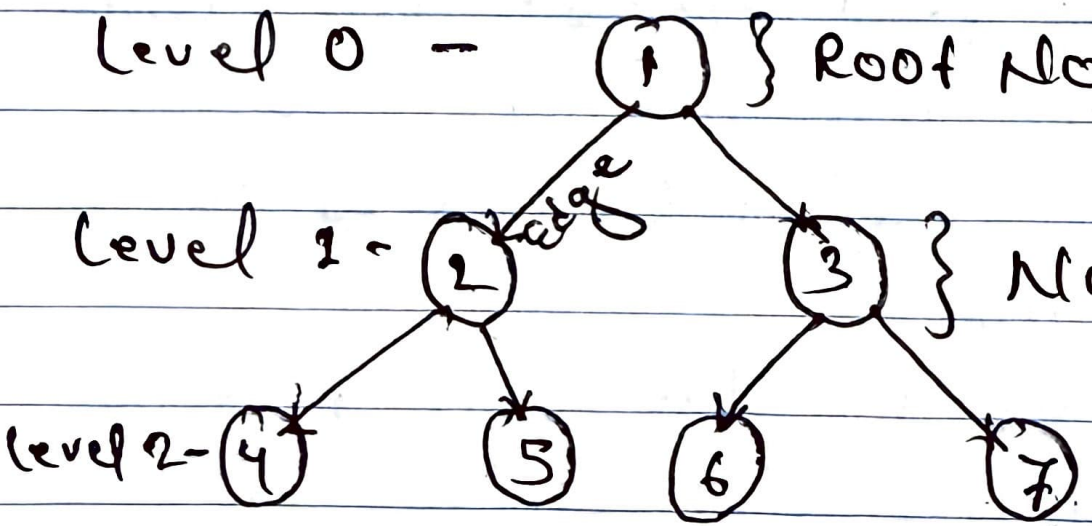
* Non-Linear data structure :-

→ Tree is one of the type of non-linear data structure.

→



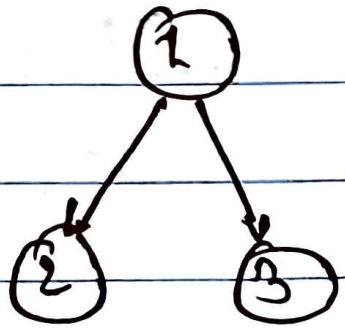
* Root Node is where we start our tree.

→ (1) is parent of (2) (3)

→ (2) and (3) is child node.

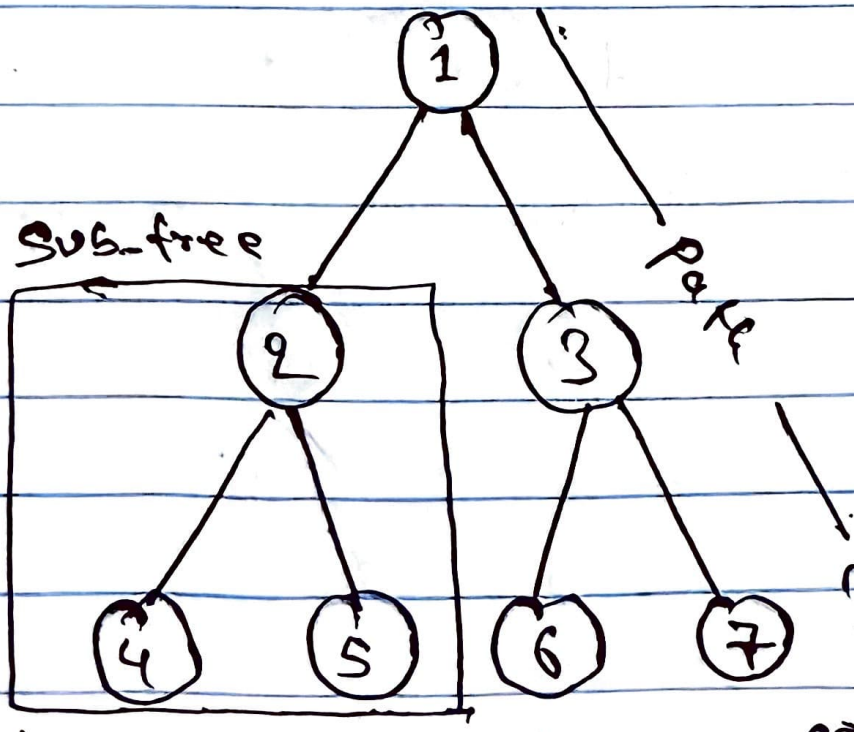
→ (1) → (2) is edge and direction from 1 to 2.

* Node with same parents are refered as siblings.



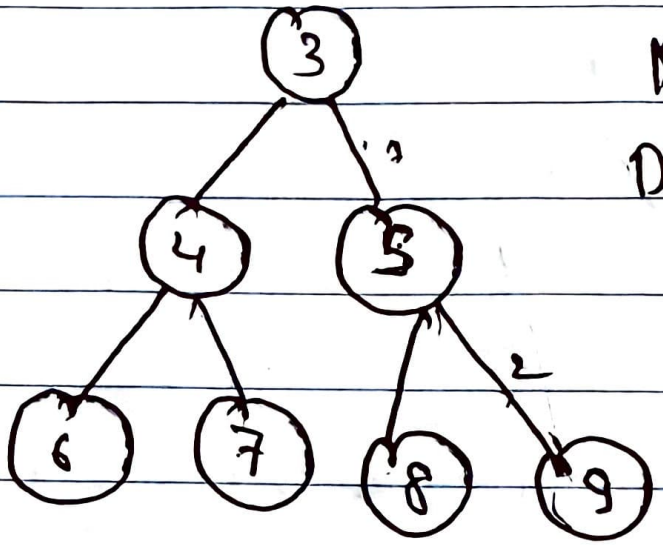
(2) and (3) are siblings.

* The last node which doesn't have any ~~ch~~ child is called leaf node.



* traversing from (1) to (7) is called path.

e.g facebook comments and replies are stored as tree data structure.



Depth of (5) is 1
Depth of (9) is 2

- (3) is root node.
- (3) (4) (5) are parent node.
- (4) (5) child of (3)
- (6) (7) child of (4)
- (8) (9) child of (5)
- (6) (7) (8) (9) are leaf node.
- (5) is sibling of (4)
- (7) is sibling of (6)
- (9) is sibling of (8)

* Depth of any ~~tree~~ node can be defined the path from root node to that particular node.

* The height of any node is the number of edges from the node to the deepest leaf.

  eg height of 5 is 1, 3 is 2.

* Any node that is not leaf node is inner or internal node.