DSA SERIES

- Learn Coding

Topic to be Covered today

Binary Tree

LETS START TODAY'S LECTURE

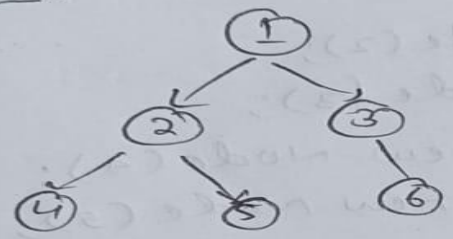
Lecture - 48

Binary Tree Basics

→ It is a hierarchical data structure where:-

- Each node has almost 2 children
  ↳ Left child & Right child
- The top node is called the root.
- If the node has no children → it's a leaf node.

Example:-



Basic Node structure in C++;

```
# include <bits/stdc++.h>
  using namespace std;
  struct Node{
      int data;
    Node * left;
    Node * right;
    Node (int val) {
        data = val;
        left = right = NULL;
    }
};
```

Each node stores:

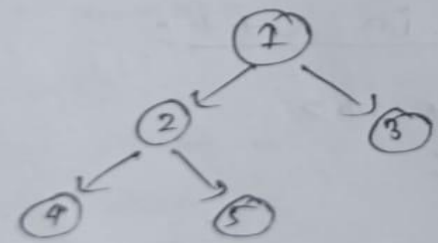
- value
- pointer to left child
- pointer to right child

For Example

Building a simple tree :-

⇒

```
int main() {
Node * root = new Node(1);
root → left = new Node(2);
root → right = new Node(3);
root → left → left = new Node(4);
root → left → right = new Node(5);
}
```



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THANK YOU