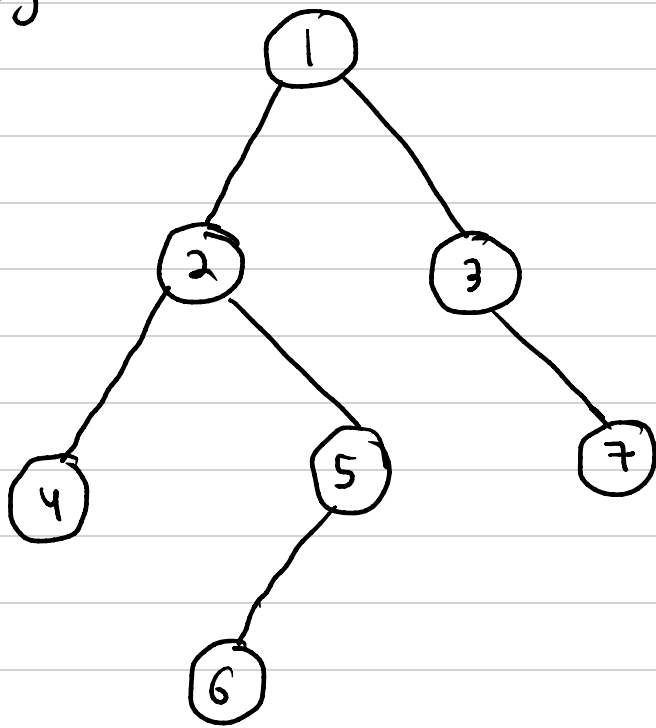# TOP VIEW OF A BINARY TREE

Problem asks us to display or output the top view of a binary tree.

Same as viewing from top and overlapp -ing elements are hidden.

Eg:

4   2   1   3   7

Solution is very similar to Vertical Order Traversal but here we just need to display loutput first element of each vertical.

Pseudocode :
```
topView Binary Tree (Node * root) {
    vector <int> ans ;
    queue < pair < Node *, int >> q ;
```

```cpp
map <int, int> mpp;
if(root == NULL) {
    return ans;
}

q.push({root, 0});
while (!q.empty()) {
    auto it = q.front();
    q.pop();
    Node * n = it.first;
    int line = it.second;
    if (mpp.find(line) == mpp.end()) {
        mpp[line] = n->val;
    }
    if (n->left != NULL) {
        q.push({n->left, line-1});
    }
    if (n->right != NULL) {
        q.push({n->right, line+1});
    }
}

for (auto it : mpp) {
    ans.push_back(it.second);
}
return ans;
}
```