



# **Data Structures & Algorithms** **using Python**

## **Quiz Answers**

### **Binary Trees 1**

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1. A node in Binary trees can have how many children?

2

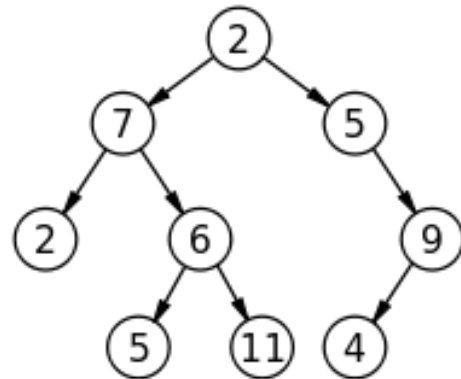
any number of children

**0 or 1 or 2**

0 or 1

2. Consider the below code

```
def takeInput():
    print("Enter root data")
    rootData = int(input())
    if (rootData == -1) {
        return None
    }
    root = BinaryTreeNode(rootData)
    root.left = takeInput()
    root.right = takeInput()
    return root
```



What will be the input(excluding -1) to above code to construct this tree ?

**1) 2 7 2 6 5 11 5 9 4**

2) 2 7 5 6 11 2 5 4 9

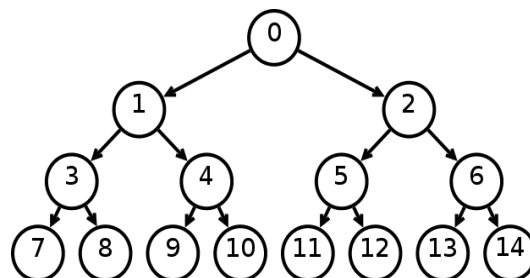
3) 2 7 5 2 6 9 5 11 4

3. Print given tree level wise

1) 0 1 3 7 8 4 9 10 2 5 11 12 6 13 14

**2) 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14**

3) 0 2 1 6 5 4 3 14 13 12 11 10 9 8 7



4. The maximum and minimum number of nodes in a binary tree of height 6 are  
A tree with zero node has height 0 A tree with one node has height 1

**63 and 6, respectively**

64 and 5, respectively

32 and 6, respectively

31 and 5, respectively