# 37. 序列化二叉树

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## 题目描述

请实现两个函数，分别用来序列化和反序列化二叉树。

## 解题思路

private String deserializeStr;  
  
public String Serialize(TreeNode root) {  
 if (root == null)  
 return "#";  
 return root.val + " " + Serialize(root.left) + " " + Serialize(root.right);  
}  
  
public TreeNode Deserialize(String str) {  
 deserializeStr = str;  
 return Deserialize();  
}  
  
private TreeNode Deserialize() {  
 if (deserializeStr.length() == 0)  
 return null;  
 int index = deserializeStr.indexOf(" ");  
 String node = index == -1 ? deserializeStr : deserializeStr.substring(0, index);  
 deserializeStr = index == -1 ? "" : deserializeStr.substring(index + 1);  
 if (node.equals("#"))  
 return null;  
 int val = Integer.valueOf(node);  
 TreeNode t = new TreeNode(val);  
 t.left = Deserialize();  
 t.right = Deserialize();  
 return t;  
}