

Problem List

Description

Editorial

Solutions

All Solutions

Simple DFS Solution | Java | C++ | Python

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2819 | Mar 22, 2025

Array

Depth First Search

Union Find

Matrix

Intuition

Approach

Complexity

Code

Java

C++

Python

```
class Solution {  
    public int numIslands(char[][] grid) {  
        int ans = 0;  
        int m = grid.length;  
        int n = grid[0].length;  
        for(int i=0; i<m; i++)  
        {  
            for(int j=0; j<n; j++)  
            {  
                if(grid[i][j]=='1')  
                {  
                    dfs(i,j,m,n,grid);  
                    ans++;  
                }  
            }  
        }  
        return ans;  
    }  
}
```

Testcase

Accepted

Submissions

All Submissions

Accepted

49 / 49 testcases passed

Abhinav submitted at Apr 17, 2025 23:26

Solution

Runtime

3 ms | Beats 85.48%

Analyze Complexity

Memory

Test Result

Accepted

Runtime: 0 ms

Case 1

Case 2

Input

grid =
[["1", "1", "1", "1", "0"], ["1", "1", "0", "1", "0"], ["1", "1", "0", "0", "0"], ["0", "0", "0", "0", "0"]]

Output

1

Expected

127. Word Ladder

Solved

Hard

Topics

Companies

A transformation sequence from word `beginWord` to word `endWord` using a dictionary `wordList` is a sequence of words `beginWord` \rightarrow `s1` \rightarrow `s2` \rightarrow ... \rightarrow `sk` such that:

- Every adjacent pair of words differs by a single letter.
- Every `si` for $1 \leq i \leq k$ is in `wordList`. Note that `beginWord` does not need to be in `wordList`.
- `sk = endWord`

Given two words, `beginWord` and `endWord`, and a dictionary `wordList`, return the **number of words in the shortest transformation sequence** from `beginWord` to `endWord`, or `0` if no such sequence exists.

Example 1:
Input: `beginWord = "hit", endWord = "cog", wordList = ["hot","dot","dog","lot","log","cog"]`
Output: 5
Explanation: A shortest transformation sequence is `hit -> hot -> dot -> dog -> cog`.

Code

Java

```
class Solution {
    public int ladderLength(String beginWord, String endWord, List<String> wordList) {
        // Use a set for quick lookup of words
        HashSet<String> set = new HashSet<>(wordList);

        // If endWord is not in the wordList, there's no valid transformation
        if (!set.contains(endWord)) return 0;

        // Queue to hold pairs of (currentWord, currentStepCount)
        Queue<Pair> q = new LinkedList<>();
        q.offer(new Pair(beginWord, 1));

        // Remove beginWord from set if it's there
        set.remove(beginWord);

        while (!q.isEmpty()) {
            String currentWord = q.peek().first;
            int step = q.peek().second;
            q.poll();

            // If we've reached the endWord, return the number of steps
            if (currentWord.equals(endWord)) return step;

            // Try all possible single-character transformations
            for (int i = 0; i < currentWord.length(); i++) {
                for (char ch = 'a'; ch <= 'z'; ch++) {
                    char[] replacedChars = currentWord.toCharArray();
                    replacedChars[i] = ch;
                    String newWord = new String(replacedChars);

                    if (set.contains(newWord)) {
                        set.remove(newWord);
                        q.offer(new Pair(newWord, step + 1));
                    }
                }
            }
        }

        return 0;
    }
}
```

Testcase

Accepted

Submissions

All Submissions

Accepted 51 / 51 testcases passed

Abhinav submitted at Apr 17, 2025 23:27

Solution

Runtime

82 ms | Beats 56.25%

Analyze Complexity

Memory

Test Result

Accepted Runtime: 0 ms

Case 1

Case 2

Input

beginWord = "hit"

endWord = "cog"

wordList = ["hot","dot","dog","lot","log","cog"]

130. Surrounded Regions Solved

Medium Topics Companies

You are given an $m \times n$ matrix `board` containing letters `'X'` and `'O'`, capture regions that are surrounded.

- Connect:** A cell is connected to adjacent cells horizontally or vertically.
- Region:** To form a region connect every `'O'` cell.
- Surround:** The region is surrounded with `'X'` cells if you can connect the region with `'X'` cells and none of the region cells are on the edge of the board.

To capture a surrounded region, replace all `'O'`'s with `'X'`'s in-place within the original board. You do not need to return anything.

Example 1:

Input: `board = [["X","X","X","X"], ["X","O","O","X"], ["X","X","O","X"], ["X","X","X","X"]]`

Output: `board = [["X","X","X","X"], ["X","X","X","X"], ["X","X","X","X"], ["X","X","X","X"]]`

Code

```
Java
1  int n = board[0].length;
2  for (int i = 0; i < m; i++) {
3      if (board[i][0] == 'O') helper(board, i, 0);
4      if (board[i][n - 1] == 'O') helper(board, i, n - 1);
5  }
6  for (int j = 1; j < n - 1; j++) {
7      if (board[0][j] == 'O') helper(board, 0, j);
8      if (board[m - 1][j] == 'O') helper(board, m - 1, j);
9  }
10 for (int i = 0; i < m; i++) {
11     for (int j = 0; j < n; j++) {
12         if (board[i][j] == 'O') board[i][j] = 'X';
13         if (board[i][j] == 'X') board[i][j] = 'O';
14     }
15 }
16 private void helper(char[][] board, int r, int c) {
17     if (r < 0 || c < 0 || r > board.length - 1 || c > board[0].length - 1 || board[r][c] != 'O') return;
18     board[r][c] = 'X';
19     helper(board, r + 1, c);
20     helper(board, r - 1, c);
21     helper(board, r, c + 1);
22     helper(board, r, c - 1);
23 }
24 
```

Testcase Accepted | Submissions

Accepted 58 / 58 testcases passed
Abhinav submitted at Apr 17, 2025 23:29

Runtime: 2 ms | Beats 84.93%
Analyze Complexity

Memory

Test Result

Accepted Runtime: 0 ms

Case 1 Case 2

Input

board =
[["X","X","X","X"], ["X","O","O","X"], ["X","X","O","X"], ["X","X","X","X"]]

Output

[["X","X","X","X"], ["X","X","X","X"], ["X","X","X","X"], ["X","X","X","X"]]

Problem List

124. Binary Tree Maximum Path Sum

Solved

Hard

Topics

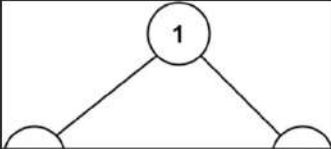
Companies

A **path** in a binary tree is a sequence of nodes where each pair of adjacent nodes in the sequence has an edge connecting them. A node can only appear in the sequence **at most once**. Note that the path does not need to pass through the root.

The **path sum** of a path is the sum of the node's values in the path.

Given the `root` of a binary tree, return *the maximum path sum of any non-empty path*.

Example 1:



17.4K

241

255 Online

Code

Java

```
1 class Solution {
2     private int maxSum = Integer.MIN_VALUE;
3
4     public int maxPathSum(TreeNode root) {
5         helper(root);
6         return maxSum;
7     }
8
9     private int helper(TreeNode node) {
10        if (node == null) {
11            return 0;
12        }
13
14        int leftMaxPath = Math.max(helper(node.left), 0);
15        int rightMaxPath = Math.max(helper(node.right), 0);
16
17        int maxIfNodeIsRoot = node.val + leftMaxPath + rightMaxPath;
18        maxSum = Math.max(maxSum, maxIfNodeIsRoot);
19
20        return node.val + Math.max(leftMaxPath, rightMaxPath);
21    }
22 }
```

Testcase

Accepted

Submissions

All Submissions

Accepted 96 / 96 testcases passed

Abhinav submitted at Apr 17, 2025 23:30

Solution

Runtime

0 ms | Beats 100.00%

Analyze Complexity

Memory

Test Result

Accepted Runtime: 0 ms

Case 1 Case 2

Input

root = [1, 2, 3]

Output

6

Expected

28°C Clear

Search

ENG IN

23:30 17-04-2025

547. Number of Provinces

Medium

Topics

Companies


There are n cities. Some of them are connected, while some are not. If city a is connected directly with city b , and city b is connected directly with city c , then city a is connected indirectly with city c .

A **province** is a group of directly or indirectly connected cities and no other cities outside of the group.

You are given an $n \times n$ matrix `isConnected` where `isConnected[i][j] = 1` if the i^{th} city and the j^{th} city are directly connected, and `isConnected[i][j] = 0` otherwise.

Return the total number of **provinces**.

Example 1:



Code

```
1 class Solution {
2     boolean visited[];
3     public int findCircleNum(int[][] isConnected) {
4         visited = new boolean[isConnected.length];
5         int cnt = 0;
6         for(int i = 0; i < visited.length; i++)
7         {
8             if(!visited[i])
9             {
10                 dfs(isConnected, i);
11                 cnt++;
12             }
13         }
14         return cnt;
15     }
16
17     private void dfs(int[][] isConnected, int curr)
18     {
19         visited[curr] = true;
20         for(int i = 0; i < isConnected[curr].length; i++)
21         {
22             if(isConnected[curr][i] == 1 && !visited[i]) dfs(isConnected, i);
23         }
24     }
25 }
```

Testcase

Accepted

Submissions

All Submissions

Accepted 114 / 114 testcases passed

Abhinav submitted at Apr 17, 2025 23:31

Runtime: 0 ms | Beats: 100.00%

Memory: @ Memory

Test Result

Accepted Runtime: 0 ms

Case 1 Case 2

Input

isConnected =

[[1, 1, 0], [1, 1, 0], [0, 0, 1]]

Output

2

Expected

Problem List

236. Lowest Common Ancestor of a Binary Tree

Solved

Medium

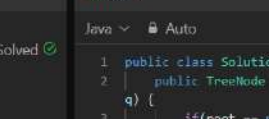
Topics

Companies

Given a binary tree, find the lowest common ancestor (LCA) of two given nodes in the tree.

According to the [definition of LCA on Wikipedia](#): "The lowest common ancestor is defined between two nodes p and q as the lowest node in T that has both p and q as descendants (where we allow **a node to be a descendant of itself**)."

Example 1:



17.5K

124

285

Code

Java

Auto

1 public class Solution {
2 public TreeNode lowestCommonAncestor(TreeNode root, TreeNode p, TreeNode q) {
3 if(root == null || root == p || root == q) return root;
4 TreeNode left = lowestCommonAncestor(root.left, p, q);
5 TreeNode right = lowestCommonAncestor(root.right, p, q);
6 if(left != null && right != null) return root;
7 return left != null ? left : right;
8 }
9 }

Testcase

Accepted

Submissions

All Submissions

Accepted 32 / 32 testcases passed

Abhinav submitted at Apr 17, 2025 23:33

Solution

Runtime

6 ms | Beats 100.00%

Analyze Complexity

Memory

Test Result

Accepted

Runtime: 0 ms

Case 1

Case 2

Case 3

Input

root =

[3, 5, 1, 6, 2, 0, 8, null, null, 7, 4]

p =

5

q =

1

207. Course Schedule

Solved

Medium

Topics

Companies

Hint

There are a total of `numCourses` courses you have to take, labeled from `0` to `numCourses - 1`. You are given an array `prerequisites` where `prerequisites[i] = [ai, bi]` indicates that you **must** take course `bi` first if you want to take course `ai`.

- For example, the pair `[0, 1]`, indicates that to take course `0` you have to first take course `1`.

Return `true` if you can finish all courses. Otherwise, return `false`.

Example 1:

Input: `numCourses = 2, prerequisites = [[1,0]]`

Output: `true`

Explanation: There are a total of 2 courses to take.
To take course 1 you should have finished course 0. So it is possible.

Example 2:

Input: `numCourses = 2, prerequisites = [[1,0],[0,1]]`

Output: `false`

Explanation: There are a total of 2 courses to take.
To take course 1 you should have finished course 0, and to take course 0 you should have finished course 1. This is a circular dependency, so it is impossible.

Code

```
10 // indegree of each node
11 int[] indegree = new int[numCourses];
12
13 // now adding node to q, which have indegree 0...
14 Queue<Integer> q = new LinkedList<>();
15 for(int i = 0; i < indegree.length; i++){
16     if(indegree[i] == 0){
17         q.add(i);
18     }
19 }
20
21 // topological sorted array..
22 List<Integer> ts = new ArrayList<>();
23
24 while(!q.isEmpty()){
25     int node = q.remove();
26     ts.add(node);
27
28     for(int nbr : graph.get(node)){
29         indegree[nbr]--;
30         if(indegree[nbr] == 0){
31             q.add(nbr);
32         }
33     }
34 }
35
36 return ts.size() == numCourses ? true : false;
37 }
```

Testcase

Accepted

Submissions

All Submissions

Accepted

54 / 54 testcases passed

Abhinav submitted at Apr 17, 2025 23:34

Solution

Runtime

8 ms | Beats 33.14%

Analyze Complexity

Memory

Test Result

Accepted

Runtime: 0 ms

Case 1

Case 2

Input

numCourses = 2

prerequisites = [[1,0]]

Output

true

