

Day98 - May13th 2024

1. Started my day as usual
2. Solved one leetcode medium problem on Binary Tree ZigZag Level

98. Validate Binary Search Tree

Please find my solution doc here :

https://docs.google.com/document/d/1jzJhEx3isuf3_hQfm165b7rMVDlxOp9dz3-9LJnmeHg/edit?usp=sharing

5-13-24_Validate binary search tree

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98. Validate Binary Search Tree

Problem Statement

Given the `root` of a binary tree, determine if it is a valid binary search tree (BST).

A **valid BST** is defined as follows:

- The left **subtree** of a node contains only nodes with keys **less than** the node's key.
- The right subtree of a node contains only nodes with keys **greater than** the node's key.
- Both the left and right subtrees must also be binary search trees.

Example 1:

```
graph TD; 2((2)) --- 1((1)); 2 --- 3((3));
```

3. Ended my day by solving complex SQL question from youtube

SQLQuery1.sql - KAUSHI\SQLEXPRESS.master (KAUSHI\jamka (64)) - Microsoft SQL Server Management Studio

File Edit View Query Project Tools Window Help

master Execute

Object Explorer: Connect, KAUSHI\SQLEXPRESS, Databases, Security, Server Objects, Replication, Management, XEvent Profile

SQLQuery1.sql - K:\KAUSHI\jamka (64)* x

```
MIN_SIZE INT,  
MAX_SIZE INT  
);  
  
--INSERT INTO COUNTRIES (ID, NAME, MIN_SIZE, MAX_SIZE)  
VALUES  
(  
'023fd23615bd4ff4b2ae0a13ed7efec9', 'Bolivia', 2, 4),  
(  
'be247f73de0f4b2d810367cb26941fb9', 'Cook Islands', 4, 8),  
(  
'3e85ab80a6f84ef3b9068b21dbcc54b3', 'Brazil', 4, 7),  
(  
'e571e164152c4f7c8413e2734f67b146', 'Australia', 5, 9),  
(  
'f35a7bb7d44342f7a8a42a53115294a8', 'Canada', 3, 5),  
(  
'a1b5a4b5fc5f46f891d9040566a78f27', 'Japan', 10, 12);  
  
--Write a query to print the maximum number of discounted tours any  
--one family can get  
select * from Families  
select * from countries
```

105 %

Results Messages

ID	NAME	FAMILY_SIZE
c00dae11bde74750b4d207b9c182a85f	Alex Thomas	9
eb6f024326694067ae3e79d6274114a4	Chris Gray	2
3f7b5b0e35d4e1c9b3e12e964a74103	Emily Johnson	4
9a345d79d994d3cab204c11d2086e	Michael Brown	6
e0a9f75160246e2b271d099e20be9d1	Jessica Wilson	3

ID	NAME	MIN_SIZE	MAX_SIZE
023fd23615bd4ff4b2ae0a13ed7efec9	Bolivia	2	4
be247f73de0f4b2d810367cb26941fb9	Cook Islands	4	8
3e85ab80a6f84ef3b9068b21dbcc54b3	Brazil	4	7
e571e164152c4f7c8413e2734f67b146	Australia	5	9
f35a7bb7d44342f7a8a42a53115294a8	Canada	3	5
a1b5a4b5fc5f46f891d9040566a78f27	Japan	10	12

Query executed successfully.

KAUSHI\SQLEXPRESS (16.0 RTM) KAUSHI\jamka (64) master | 00:00:00 11 rows

Ready 20°C Clear

Ln 31 Col 58 Ch 58 INS

SQLQuery1.sql - KAUSHI\SQLEXPRESS.master (KAUSHI\jamka (64)) - Microsoft SQL Server Management Studio

File Edit View Query Project Tools Window Help

master Execute

Object Explorer: Connect, KAUSHI\SQLEXPRESS, Databases, Security, Server Objects, Replication, Management, XEvent Profile

SQLQuery1.sql - K:\KAUSHI\jamka (64)* x

```
select count(*) as discounted_tours from countries  
where MIN_SIZE < (select max(family_size) from FAMILIES)
```

105 %

Results Messages

discounted_tours
5

Query executed successfully.

KAUSHI\SQLEXPRESS (16.0 RTM) KAUSHI\jamka (64) master | 00:00:00 1 rows

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