

Day99 - May 14th 2024

1. Started my day as usual

2. Solved **103. Binary Tree Zigzag Level Order Traversal**

A medium problem on binary trees using two stacks

Pls find my sol doc here :

<https://docs.google.com/document/d/1Mr8yn0CWvhxCkpfQRV2tD94UjlqaVyklKqCuZRGv7rw/edit?usp=sharing>

The screenshot shows a computer screen with two main windows. On the left is a Media Player window displaying a video. The video content includes a binary tree diagram with root 10, children 20 and 30, and further levels. Handwritten notes in orange and green ink say "Idea 1: Let's modify BFS (Queue) while keeping track of the levels." and "2". Below the video is a progress bar and a title "4. Print Level order trav...". On the right is a Google Docs window titled "5-14-24_Binary Tree Zigzag Level ...". It contains a similar binary tree diagram, handwritten notes, and a list of four points under the heading "Approach:". The notes include "level order", "Spiral order", and "level order ~ BFS (Queue)". The list of points is:

1. So we have to traverse in this way
2. Here for every problem solving ...we'll map a solution of a similar problem which we have solved earlier..
3. Here we have solved level order traversal...which used BFS(queue) to solve
4. So here..is there any way we can tweak the BFS and solve this problem?

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

SQLQuery1.sql - KAUSHI\SQLEXPRESS.master (KAUSHI\jamka (67)) - Microsoft SQL Server Management Studio

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

```

--Q : Remove duplicates in case of source,destination,distance are same and keep the first]
-- value only

select * from city_distance

```

Results:

distance	source	destination
100	New Delhi	Panipat
200	Ambala	New Delhi
150	Bangalore	Mysore
150	Mysore	Bangalore
250	Mumbai	Pune
250	Pune	Mumbai
2500	Chennai	Bhopal
2500	Bhopal	Chennai
60	Tirupati	Tirumala
80	Tirumala	Tirupati

Query executed successfully.

SQLQuery1.sql - KAUSHI\SQLEXPRESS.master (KAUSHI\jamka (67)) - Microsoft SQL Server Management Studio

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

```

select * from city_distance

select c1.*
from city_distance c1
left join city_distance c2 on c1.source = c2.destination and c1.destination = c2.source
where c2.distance is null or c1.distance != c2.distance or c1.source < c1.destination

```

/* Explanation:
Step1 : First we use self left join and join our tables on
c1.source = c2.destination and c1.destination = c2.source
This self left join helps us identify the duplicates
Step2 : Here if the c2.distance is null then c1.source&dest are unique
similarly if the c1.dist and c2.dist is not same then they are
unique
Step3 : Now to filter out the duplicate source and destination
we used the help of ascii values and filtered "c1.source<c1.destination"

Results:

distance	source	destination
100	New Delhi	Panipat
200	Ambala	New Delhi
150	Bangalore	Mysore
250	Mumbai	Pune
2500	Bhopal	Chennai
60	Tirupati	Tirumala
80	Tirumala	Tirupati

Query executed successfully.