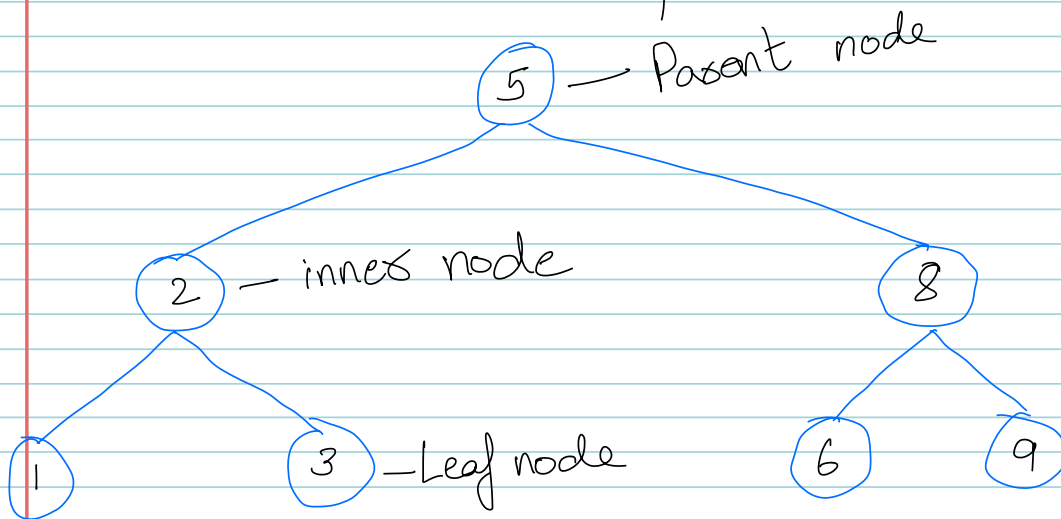


Q1) What is indexed (columns)?

Q2) How join tables considering the relationship

Rough Notes

N	P	Row Number	Rank	Dense Rank	Desired output is to get Numbers of Binary tree label.
1	2	1	1	1	
3	2	2	1	1	
6	8	1	3	2	
9	8	2	3	2	
2	5	1	5	3	
8	5	2	5	3	
5	N	1	7	4	



Now write a logic for Parent, inner & Leaf nodes

When integer exist in both Column in any row then it is

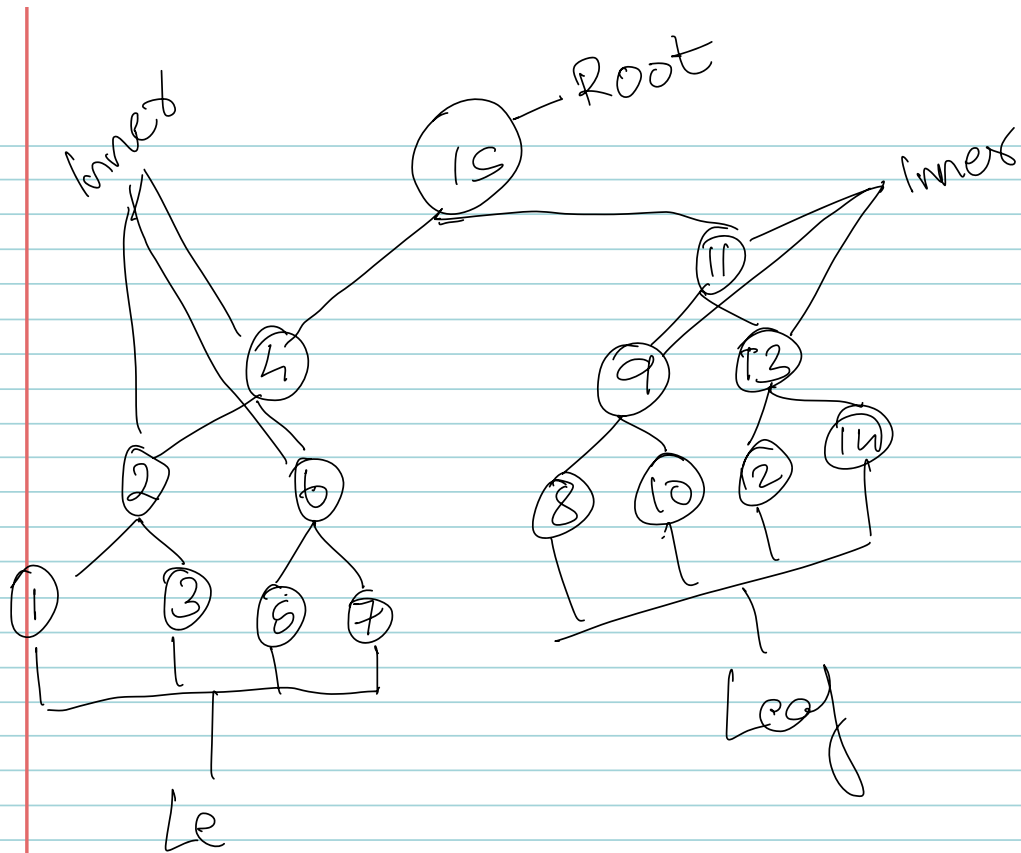
inner node

inner node integer in p Column - Corresponding to that row in N Column is Leaf node

When there is Null in p Column then corresponding to that row in N Column is parent node

3 tables

Root	Inner_node	Leaf
15	2	1
	6	2
	4	5
	9	7
	13	8
	11	10
	15	12
		14



Founder	output	
↓	Print - Company Code, founder name,	Order By Company Code
Lead Manager	Total Lead Manager	
↓	Total Senior Manager	
Senior Manager	Total Manager	
↓	Total Employees	
Manager		
↓		
Employee		

Company Table:

company_code	founder
C1	Monika
C2	Samantha

Lead\_Manager Table:

lead_manager_code	company_code
LM1	C1
LM2	C2

Senior\_Manager Table:

senior_manager_code	lead_manager_code	company_code
SM1	LM1	C1
SM2	LM1	C1
SM3	LM2	C2

Manager Table:

manager_code	senior_manager_code	lead_manager_code	company_code
M1	SM1	LM1	C1
M2	SM3	LM2	C2
M3	SM3	LM2	C2

Employee Table:

employee_code	manager_code	senior_manager_code	lead_manager_code	company_code
E1	M1	SM1	LM1	C1
E2	M1	SM1	LM1	C1
E3	M2	SM3	LM2	C2
E4	M3	SM3	LM2	C2

C1	~~~~
C2	~~~~
C3	~~~~
C4	~~~~
C5	~~~~
C6	~~~~
C7	~~~~
C8	~~~~

LM1	C1
LM2	C2
LM3	C3
LM4	C4
LM5	C5

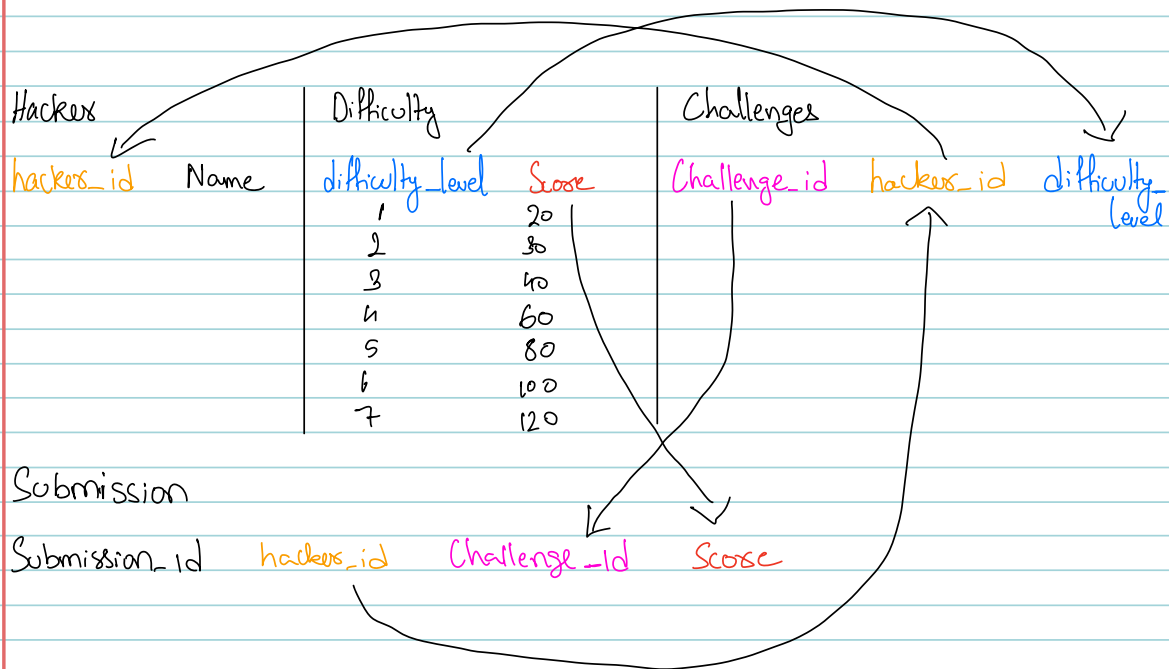
SM1	LM1	C1
SM2	LM2	C2
SM3	LM3	C3
SM4	LM4	C4
SM5	LM5	C5

RW	LAT	LAG
1	0.2325	00.000
2	24.672	0.2325
3	32.732	24.672
4	34.782	32.732

$$\frac{32.73 + 24.6}{2}$$

Ketty → Eve generate report with 3 columns.

- 1) Grades lower than 8 - Names must be removed
  - 2) Report must be ORDER BY Grade DESC
  - 3) More students with same grade (8-10) - ORDER BY name alpha
  - 4) If the grade < 8 use NULL as names & list by ORDER BY Grades DESC
  - 5) More than one student with grade (1-7) - ORDER BY Marks in ASC
- 
- 1) Hacker id & name who got full scores more than one challenge orders the results based on count of perfect scores in DESC.
  - 2) If more than one Hackers got full score in same count of challenges - ORDER BY ASC hacker\_id.



hacker @ challenges @ submission @ Difficulty

Print id, age, coins-needed & power

ORDER BY Power DESC

If a band has same power then ORDER BY Age DESC

Print  $\rightarrow$  hacker\_id, name, total No. of Challenges

- ORDER BY Challenges DESC
- Students  $> 1$  who created same No. of Challenges & the count is less than max challenges created then exclude those students from result.

hacker_id	name	challenge_id
123	Aaj	50
342	jab	50
356	Sab	42
936	Sup	42
735	Cham	40
731	Cham	39

--	--	--

```
SELECT *  
FROM Group_Cha  
Where challenge_id = (select max(challenge_id)  
From challenges)
```