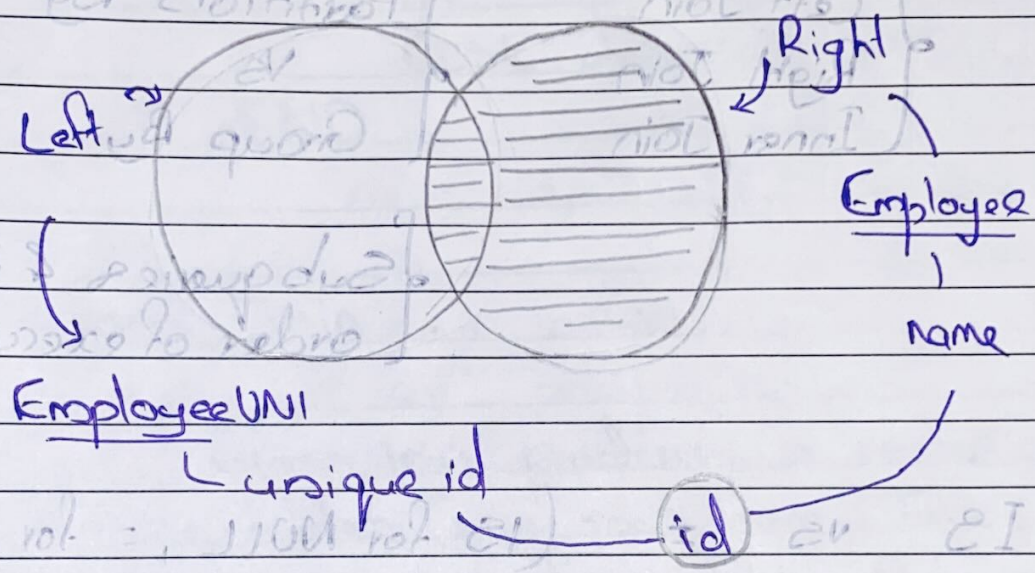
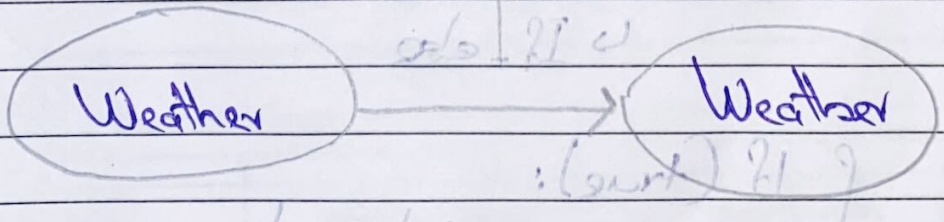
Joins and Subqueries



SQL 50 (Leetcode)
1581 (customers who visited but did not make transaction

Self Join



- Self Join: A self join is a technique where a table is joined with itself to compare its rows, often using aliases to differentiate between the two instances

- Joins, Window Function

↳ Self Join
Left Join
Right Join
Inner Join

Ranking Functions
Partition By
VS
Group By

Subqueries & its order of execution

% IS vs = (IS for NULL, = for numeric)

⊙ Case Statements & Expression

SQL ↳

- Conditional statements
  ↳ If-else

If (true):
    case statements
else:
    Not due

- Syntax

```
CASE
    WHEN condition1 THEN result1
    WHEN condition2 THEN result2
    ...
    ELSE default_result
END
```

⊙ Cross Join

Cross join produces a cartesian product of two tables (every row from Table A combines with every row from Table B)

Example:

employees

emp_id	emp_name
1	Alice
2	Bob

departments

dept_id	dept_name
101	HR
102	Engineering

Result:

emp_id	emp_name	dept_id	dept_name
1	Alice	101	HR
1	Alice	102	Engineering
2	Bob	101	HR
2	Bob	102	Engineering

⊙ Inner join

An Inner join combines rows from two tables based on a matching condition. It only returns rows where there is a match in both tables ...

Common Table Expression

- Complex queries
- Optimize the SQL query (Efficient approach)