Paresh, here is a **perfect 2-day focused study plan** designed exactly for:
✔ Aggregation
✔ GROUP BY
✔ (Prepare base for HAVING tomorrow)
This will make you **100% strong** before we enter HAVING.

? DAY 1 PLAN — Aggregation Mastery (3–4 hours total)

Goal: Fully master **COUNT, SUM, AVG, MIN, MAX** + simple WHERE.

📌 1. Theory (30 minutes)

Study these concepts:

- What is an aggregate function
- COUNT(), SUM(), AVG(), MIN(), MAX()
- Aggregation happens **after WHERE**
- Aggregates return **one value** unless grouped
- Aggregate + WHERE (but NOT HAVING yet)

☞ Read slowly with examples.
☞ Write notes.

📌 2. Practical (1 hour)

Solve the **10 aggregation questions** I gave you:

1. COUNT(*)
2. SUM(salary)
3. MAX(salary)
4. MIN(salary)
5. AVG(salary)
6. COUNT city = 'Delhi'
7. AVG(age)
8. MIN(joining_date)
9. MAX(joining_date)
10. COUNT salary > 50,000

☞ Write queries yourself.
☞ Test on your SQL Server or online SQL tool.
☞ Verify outputs manually to build confidence.

📌 3. Deep understanding (45 min)

Focus on **concept clarity**:

- Why SELECT cannot come before aggregate
- Why WHERE cannot use aggregate
  (COUNT, SUM cannot be used inside WHERE)
- Why aggregate returns only one row

- What happens when table has NULL values

Practice mini concepts:

✔ COUNT(column) vs COUNT(*) vs COUNT(DISTINCT)
✔ SUM(NULL) = NULL
✔ AVG ignores NULL

📌 4. Mini revision (15 minutes)

Rewrite all formulas:

COUNT(*)
COUNT(column)
COUNT(DISTINCT column)
SUM(salary)
AVG(age)
MIN(joining_date)
MAX(salary)

📌 Day 1 Output Expected

You should feel:

🔥 "Aggregation is super easy"
🔥 "I can solve any basic–medium aggregation question confidently"

🗓 DAY 2 PLAN — GROUP BY Mastery (4 hours total)

Goal: Master grouping logic 100% before learning HAVING.

📌 1. Theory (40 min)

Study these:

- GROUP BY converts "rows → buckets"
- GROUP BY + aggregate returns **one row per group**
- Columns in SELECT must be:
  → aggregated OR present in group by
- WHERE filters **before grouping**

Example mental model:

Delhi 50k
Delhi 60k
Mumbai 40k

GROUP BY city → 2 buckets:
Delhi bucket → SUM = 1,10,000
Mumbai bucket → SUM = 40,000

📌 2. Solve 10 GROUP BY questions (1.5 hours)

☞ Write AND test the queries yourself.
Examples:

```
SELECT city, COUNT(*) FROM employees GROUP BY city;

SELECT department, SUM(salary) FROM employees GROUP BY department;

SELECT city, MAX(salary) FROM employees GROUP BY city;
```

Focus on **accuracy + confidence**.

📌 3. Advanced GROUP BY understanding (45 min)

Study these extra points:

- You cannot SELECT columns not in GROUP BY
- GROUP BY creates **unique combinations**
- GROUP BY + ORDER BY
- GROUP BY multiple columns (practice 2–3 examples)

Examples to practice:

```
SELECT city, department, COUNT(*)
FROM employees
GROUP BY city, department;
```

📌 4. Mini revision (20 min)

Rewrite all rules:

GROUP BY groups rows
WHERE filters rows
Aggregates apply on groups
SELECT picks group results

📌 End of Day 2 Output Expected

You should feel:

🔥 “GROUP BY feels easy and logical”
🔥 “I know exactly when and how grouping works”
🔥 “I'm ready for HAVING”