

I'll give you a **3-day Mastery Plan** using **Spaced Repetition Learning (SRL)** ONLY for the **11 weak questions** you got wrong.
This plan will make you memorise + master them permanently.

🔥 3-DAY SQL MASTERY PLAN (Spaced Repetition Technique)

Focus: The 11 questions you missed.

DAY 1 — EXPLANATION + SLOW PRACTICE (Understanding Phase)

Goal: Build 100% clarity.

1 📖 Study these topics again (slowly):

- WHEN to use NOT IN
 - BETWEEN correct usage
 - LEN + REPLACE
 - IS NULL vs = NULL
 - UPDATE queries syntax
 - Basic INSERT patterns
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🔥 Day 1 Practice (Re-solve all 11 wrong questions — slowly)

Do these queries again:

✓ LEN + REPLACE

- 28. Find names with more than 1 space
- 29. Replace spaces with underscores
- 30. Display name + its length

✓ IN

- 35. City NOT IN ('Mumbai','Pune')

✓ BETWEEN

- 37. Age between 20–30
- 38. emp_id between 100–200
- 39. Name length between 5 and 12

✓ NULL

- 43. Update NULL department
- 44. Joining_date NOT NULL

✓ UPDATE

- 47. Increase IT salary by 10%
- 48. Salary < 40000 → set 40000

DAY 2 — ACTIVE RECALL (Fast recall round)

Goal: Check memory → write queries **without seeing notes**.

What to do:

1. Rewrite all 11 queries **from memory**
2. Set timer: **1 minute per query**
3. Don't look at your Day 1 notes
4. After writing, compare with correct solutions

If 8/11 correct → GREAT

If less than 8 correct → Do another round

● DAY 3 — SPACED REPETITION (Stress Test Round)

Goal: Push queries into long-term memory.

Step 1:

Shuffle the 11 questions (I can shuffle for you)

Step 2:

Solve them **twice**:

◆ **Morning (fresh mind)**

◆ **Evening (reinforcement)**

Step 3 — Rapid Fire (Final Test)

Answer each of these **WITHOUT** thinking:

- NOT IN → syntax?
- BETWEEN → syntax?
- LEN + REPLACE → formula?
- UPDATE increase by % → formula?
- How to set null values?
- How to find length between X and Y?

If you can answer ALL → Mastered.

After 3 Days — You Will Observe:

- ✓ Queries start coming automatically
 - ✓ No more confusion in BETWEEN
 - ✓ UPDATE statements will feel easy
 - ✓ NULL logic will be crystal-clear
 - ✓ Your SQL confidence will jump 200%
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🔖 BONUS (Optional but Powerful)

On Day 4, I can take your **Mini SQL Test (15 questions)** only on your weak areas to verify mastery.

DAY 2 — Harder Problems & Pattern Mastery (2 Hours)

🔖 0–20 min — Recall Test

Close your eyes.

Try to write definitions of:

OFFSET, FETCH, HAVING, GROUP BY, LEN, REPLACE, YEAR, LIKE.

No cheating.

🔖 20–90 min — 20 Hard Questions

This round gives advanced variations:

OFFSET / FETCH Hard (4)

1. Show highest salary except top 1
2. Get 4th highest salary (OFFSET 3 FETCH 1)
3. Find median salary
4. Paginate 4th page, page size 7

GROUP BY Hard (6)

5. Show year-wise salary sum
6. Show city-wise employee count excluding NULL
7. Find departments where avg salary > overall avg
8. Show max salary per year
9. Show city with highest employee count

10. Group by first letter of name

String Function Hard (5)

11. Count vowels in name
12. Extract first 3 letters
13. Show names with more vowels than consonants
14. Reverse name using nested functions (LEN + SUBSTRING)
15. Replace multiple characters ('a','e') with '*'

Date Function Hard (3)

16. Find employees who joined on weekends
17. Show quarter-wise employees
18. Calculate tenure (YEAR(GETDATE()) – YEAR(joining_date))

LIKE Pattern Hard (2)

19. Find names containing exactly 2 vowels
20. Find names where 2nd character is digit ('_ [0-9] %')

📌 90–120 min → Deep Understanding (Notes)

Write:

- Why GROUP BY needs aggregates
- What happens internally when OFFSET executes
- Why LIKE is a slow operator (full scan)
- Why REPLACE works as nested logic
- How date functions convert datetime → integer values

DAY 3 — Mastery + Mixed Test Simulation (2 Hours)

📌 0–20 min — ONLY Recall, No Solving

Write definitions of 15 SQL concepts from memory.

📌 20–90 min — 30-Question Mixed Final Test

I will give you this tomorrow after Day 2.

This simulates real interview difficulty.

Mix of:

- OFFSET/FETCH

- GROUP BY
- String + Date functions
- LIKE patterns
- HAVING
- Multi-column grouping
- Vowel, consonant, digit logic

You must score **25/30**.

If not → repeat Day 2.

📅 90–120 min — Master Notes (Final Revision)

Write these in notebook:

1. **OFFSET vs FETCH**
2. **WHERE vs HAVING**
3. **GROUP BY rules**
4. **BEST USE of REPLACE + LEN**
5. **All LIKE shortcuts**
6. **Year/Month filtering best practices**
7. **Pattern matching mistakes to avoid**

This creates long-term memory.