

## Day 8 – Pattern Matching & Filtering Mastery

Today you fully mastered the most important filtering techniques used in **Data Engineering**, **ETL**, **Analytics**, and **Database Admin** interviews.

Here are **70 SQL Questions** divided into **Basic**, **Medium**, and **Advanced**, strictly based on **ALL topics you studied today**.

No answers — only questions (interview format).

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### SECTION 1 — 25 Basic Questions (LIKE, NOT LIKE, %, \_, IN, NULL, ORDER BY)

1. Find all employees whose name starts with 'A'.
  2. Find names that end with letter 'n'.
  3. Fetch all records where the name contains 'ra'.
  4. Get all names where the second character is 'a'.
  5. Fetch names that have exactly 5 characters.
  6. Find all employees older than 30 and name starts with 'P'.
  7. List all employees whose department is either IT or HR (using IN).
  8. Find employees not in the Sales or Admin department (using NOT IN).
  9. Get records where city is NULL.
  10. Get records where phone\_number is NOT NULL.
  11. Sort employees by department, then salary.
  12. Fetch names not containing 'in'.
  13. Find products with code starting with 'P'.
  14. Show customers whose email contains '@'.
  15. List items where SKU ends with a digit.
  16. Get all employees where name starts with 'S' AND city = 'Delhi'.
  17. Find phone numbers that contain exactly one underscore \_.
  18. Fetch names NOT starting with 'A'.
  19. Fetch names starting with any one of A, B, or C.
  20. Find products where price is stored as text and starts with '1'.
  21. Fetch records where joining\_date is today's date.
  22. List employees where designation contains 'manager'.
  23. Find customers whose address contains a space.
  24. Show all records where status is not equal to 'Active'.
  25. List students ordered by marks descending and then name alphabetically.
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## QUESTION BANK

### SECTION 2 — 25 Medium Questions (Range, Escape, Pattern Logic, Functions)

26. Fetch names starting with any character from A–F.
27. Fetch department names NOT starting with letters A–M.
28. Find names containing a literal underscore \_ using ESCAPE.
29. Find product codes containing a literal % symbol.
30. Get all names where 3rd character is ‘n’.
31. Find SKUs where the last character is NOT alphabetic.
32. Fetch customers whose name contains exactly two ‘a’ characters.
33. Find users whose usernames contain at least one special character.
34. Find employees whose name starts with vowel (A, E, I, O, U).
35. Fetch codes starting with any digit (0–9).
36. Find all records where comment starts with non-alphabetic character.
37. Get product codes with pattern: digit + letter + digit (e.g., 2A3).
38. Find books where the second character is a digit.
39. Fetch names containing letters between p–t.
40. Show names not containing any letters from a, e, i, o, u.
41. List records where LEFT(name, 1) = RIGHT(name, 1).
42. Fetch employees whose name length (LEN) > 8.
43. Find emails not ending with ".com".
44. Fetch customers where DOB month = 01 (using DATE functions).
45. List products where CAST(price AS INT) > 1000.
46. Reduce name to first 3 characters using LEFT() and apply LIKE filter.
47. Find all records created in the last 7 days using DATE functions.
48. Find all employees whose ID has one hyphen (“-”) in the middle.
49. Fetch customers whose name has repeating letters (aa, bb, cc).
50. Find addresses containing numbers anywhere in the text.

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### SECTION 3 — 20 Advanced Questions (Real Business, Complex Patterns, Multi-Conditions)

51. Find employees whose name starts with A but does NOT contain ‘test’.
52. Fetch records where name starts with A, ends with N, and contains ‘ra’.
53. Find product codes that contain only uppercase letters (no digits).
54. Fetch all rows where description contains both ‘data’ AND ‘sql’.
55. Exclude all names containing ANY special character (@, #, %, &, !).
56. Fetch records where name starts with lowercase and ends with uppercase letter.
57. Get customer names where LEN(name) = 10 AND second character is vowel.
58. Find phone numbers containing exactly 10 digits (using LIKE + ranges).

- 59. List employees whose joining year = 2023 (using DATEPART or FORMAT).**
- 60. Find all records where RIGHT(name, 3) matches pattern ‘an\_’.**
- 61. Fetch items whose SKU pattern is AAA-999 (3 letters + hyphen + 3 digits).**
- \*\*62. Find employees with names containing a pattern of:  
letter + digit + letter + digit.\*\***
- 63. Return names that do NOT start with A–Z (non-alphabetic).**
- 64. Find emails that contain “.” after the “@” symbol.**
- 65. Fetch products where price is stored as text and contains only digits.**
- 66. Find students whose marks contain trailing spaces (LIKE with pattern).**
- 67. Fetch only those rows where NULL and empty-string (“”) behave differently.**
- 68. Find all book titles where the last two characters are NOT alphabetic.**
- 69. Fetch users where converted numeric (CAST) value ends with digit 5.**
- 70. Advanced: Apply LIKE on concatenated fields (first\_name + last\_name).**