## Last minute SQL questions to revise before an interview

## 1. SQL Basics & Syntax

- Understanding SQL structure: SELECT, INSERT, UPDATE, DELETE
- Query structure: SELECT \* FROM table WHERE condition;

## 2. Database Design & Normalization

- Entity-Relationship (ER) diagrams
- First, Second, Third Normal Forms (1NF, 2NF, 3NF)

#### 3. Joins

- INNER JOIN, LEFT JOIN, RIGHT JOIN, FULL OUTER JOIN
- CROSS JOIN and self-joins
- Join conditions and aliases

### 4. Aggregate Functions

- COUNT(), SUM(), AVG(), MIN(), MAX()
- GROUP BY and HAVING clauses
- Filtering aggregated results

### 5. Subqueries

- Scalar subqueries, IN, EXISTS, and correlated subqueries
- Using subqueries in SELECT, WHERE, and FROM clauses

#### 6. Indexes

- Types of indexes (unique, composite)
- Creating and using indexes to optimize queries

## 7. Transactions & ACID Properties

- COMMIT, ROLLBACK, and SAVEPOINT
- Understanding Atomicity, Consistency, Isolation, Durability (ACID)

# 8. Stored Procedures and Functions

- Creating and using stored procedures and functions
- Understanding parameters, return values, and control flow

## 9. View

- Creating, altering, and dropping views
- Using views to simplify complex queries

# 10. Advanced SQL Concepts

- Window functions (e.g., ROW\_NUMBER(), RANK(), PARTITION BY)
- Common Table Expressions (CTE) and recursive queries