

# 7-Day SQL Mastery Plan

## Day 1: SQL Fundamentals & Database Basics

- Understand what SQL is and why its used
- Learn about RDBMS (Relational Databases)
- Understand tables, rows, columns, primary key, foreign key
- Practice basic SQL syntax: SELECT, FROM, WHERE
- Use LIMIT, ORDER BY, DISTINCT, AS
- Explore a sample database (e.g., Sakila, Chinook)
- Practice Site: SQLBolt or Mode SQL Tutorial

## Day 2: Filtering, Functions & Sorting

- Master conditional statements: AND, OR, NOT, BETWEEN, IN, LIKE
- Learn built-in functions: COUNT(), SUM(), AVG(), MAX(), MIN()
- Practice sorting and filtering complex queries
- Understand NULL and how to handle it
- Work on real-time data filters
- Quiz yourself on logic conditions

## Day 3: Grouping, Aggregation & Joins (Beginner Project)

- Use GROUP BY and HAVING
- Learn different types of JOINS: INNER, LEFT, RIGHT, FULL
- Combine data from multiple tables
- Complete a beginner project: 'Customer Order Summary'
- Build queries that summarize and group information
- Practice on LeetCode SQL Easy

## Day 4: Subqueries, Set Ops, and Nested Logic

- Understand subqueries (SELECT inside SELECT)
- Use set operations: UNION, INTERSECT, EXCEPT

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- Use CASE WHEN for conditional logic
- Practice nesting queries (multi-layer logic)
- Solve 35 real business-style problems using subqueries

## Day 5: Advanced SQL + Intermediate Project

- Work with WINDOW functions: RANK(), DENSE\_RANK(), ROW\_NUMBER()
- Use PARTITION BY, OVER()
- Explore CTEs (WITH clause) and recursive queries
- Intermediate Project: 'Product Sales Dashboard DB'
- Practice optimizing queries
- Tackle intermediate problems on StrataScratch

## Day 6: Business Questions + Advanced Project

- Solve real-world SQL business questions (churn, conversion, growth trends)
- Use joins, subqueries, windows in combo
- Learn best practices in reporting queries
- Advanced Project: 'Customer Lifetime Value (CLV) Report'
- Write clean, production-ready SQL
- Build insights-driven dashboards with SQL-ready outputs

## Day 7: Review + Mock Interview + Portfolio

- Review all SQL concepts
- Complete a SQL assessment (try Hackerrank SQL test)
- Polish and upload all 3 projects to GitHub
- Document learnings in a blog or Notion page
- Practice mock interviews (SQL questions)
- Update LinkedIn/portfolio with SQL Proficiency