

## Week-5

Domain: **Sql Database**

### Weekly Activities:

1. Hacker Rank
2. Practice Typing

### Week Technical Workout Schedule:

Day	Topics	Assignments
1	<p>Day 1: Introduction to SQL</p> <p>Learn the basic concepts of SQL, including data types, tables, and basic SQL syntax.</p> <p>Understand how to create and manipulate tables, as well as insert and retrieve data using basic SQL commands.</p> <p>Practice writing basic SQL queries to filter and sort data.</p>	
2	<p>Day 2: Filtering Data</p> <p>Learn how to use WHERE clauses to filter data based on specific criteria.</p> <p>Understand how to use comparison operators, logical operators, and wildcards to filter data.</p> <p>Practice writing more complex SQL queries using WHERE clauses.</p> <p>Learn how to use the ORDER BY clause to sort data.</p> <p>Understand how to sort data in ascending and descending order.</p> <p>Practice writing SQL queries that sort data based on one or more columns.</p>	
3	<p>Day 3: Aggregating Data</p> <p>Learn how to use aggregate functions like COUNT, SUM, AVG, MIN, and MAX to perform calculations on your data.</p> <p>Understand how to use GROUP BY clauses to group data based on one or more columns.</p> <p>Practice writing SQL queries that perform calculations and group data</p>	

Day	Topics	Assignments
4	<p>Day 4: Joining Tables</p> <p>Learn how to use JOIN clauses to combine data from two or more tables.</p> <p>Understand the different types of JOINS, including INNER JOIN, LEFT JOIN, RIGHT JOIN, and FULL OUTER JOIN.</p> <p>Practice writing SQL queries that join data from multiple tables.</p>	
5	<p>Day 5: Subqueries and Views</p> <p>Learn how to use subqueries to write more complex SQL queries.</p> <p>Understand how to create views to simplify complex SQL queries and provide a more user-friendly interface.</p> <p>Practice writing SQL queries that use subqueries and creating views.</p>	
6	<p>Day 6: Transactions and Concurrency Control</p> <p>Learn how to use transactions to ensure data integrity and consistency in your database.</p> <p>Understand how to use the COMMIT and ROLLBACK statements to manage transactions.</p> <p>Learn about concurrency control and how it helps manage access to shared resources in a database.</p> <p>Practice writing SQL queries that use transactions and understanding the impact of concurrency control on database performance.</p>	
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