[MY SQL Data type](https://www.w3schools.com/mysql/mysql_datatypes.asp)

[SQL Zero to Hero](https://onedrive.live.com/redir?resid=1C78D172DEE0ACCA%21639&authkey=%21ArfuBEZp2xIJZbU&page=View&wd=target%28SQL%20Introduction.one%7C59c3b238-0400-4aae-b94f-4596972e33dd%2FSQL%20Introduction%7Cd2b197ee-c1c3-4860-bab7-e5514e97f6fb%2F%29&wdorigin=NavigationUrl)

[SQL Online Editor](https://www.programiz.com/sql/online-compiler/)

[Having Clause](https://www.programiz.com/sql/having)

[SQL GROUP BY (With Examples) (programiz.com)](https://www.programiz.com/sql/group-by)

[SQL JOIN (With Examples) (programiz.com)](https://www.programiz.com/sql/join)

[SQL SELECT and SELECT WHERE (With Examples) (programiz.com)](https://www.programiz.com/sql/select#sql-where)

[SQL Wildcards (With Examples) (programiz.com)](https://www.programiz.com/sql/wildcards)

𝗦𝘁𝗮𝗿𝘁 𝗣𝗿𝗮𝗰𝘁𝗶𝗰𝗶𝗻𝗴 𝘁𝗵𝗲 𝗽𝗿𝗼𝗯𝗹𝗲𝗺𝘀 𝗼𝗻 𝗺𝘂𝗹𝘁𝗶𝗽𝗹𝗲 𝗽𝗹𝗮𝘁𝗳𝗼𝗿𝗺𝘀.  
  
- Dataford - <https://lnkd.in/gtqdw864>  
- LeetCode - <https://lnkd.in/gkCpv7NA>  
- HackerRank - <https://lnkd.in/gnFS4frz>  
- NamasteSQL - <https://lnkd.in/gQTuepVf>  
- SQLZoo - <https://sqlzoo.net/>  
- Mode Analytics - <https://lnkd.in/gRPrQrf5>  
- SQL Bolt - <https://sqlbolt.com/>  
- GeeksforGeeks - <https://lnkd.in/ggYbizNB>  
- LearnSQL - <https://www.learnsql.com/>  
- LearnMode - <https://lnkd.in/gQYCkwS2>  
- Strata Scratch - <https://lnkd.in/gYtZQY53>  
- DataLemur - <https://datalemur.com/>  
- SQL Fiddle - <http://sqlfiddle.com/>  
- DB-Fiddle - <https://www.db-fiddle.com/>  
- SQL Exercises - <https://lnkd.in/d89TewuQ>  
- SQL Practice Set - <https://lnkd.in/ddn7hfeu>  
- DataCamp - <https://lnkd.in/dUyvbSwC>  
- Kaggle - <https://lnkd.in/dn83kbwv>  
- Mode SQL Tutorial - <https://lnkd.in/d53iPD-U>  
- SQL Murder Mystery - <https://lnkd.in/dtVqDV-g>

I solved these 20 Leetcode questions.  
  
1. Combine two tables: <https://lnkd.in/dumdCXC7>  
2. Employees earning > managers: [https://Inkd.in/dKqcFmzY](https://inkd.in/dKqcFmzY)  
3. Duplicate emails: <https://lnkd.in/dJSYfs89>  
4. Customers who never order : <https://lnkd.in/dPZPAKFf>  
5. Delete duplicate emails: <https://lnkd.in/dEKnD9s3>  
6. Rising temperature: <https://lnkd.in/dyZvVYvP>  
7. Employee bonus: [https://Inkd.in/d9iTXt-V](https://inkd.in/d9iTXt-V)  
8. Find customer referee : <https://lnkd.in/d5cXjXdb>  
10. Big countries: <https://lnkd.in/dAnS54qK>  
11. Classes more than 5 students : <https://lnkd.in/dfrUiutd>  
12. Sales person: <https://lnkd.in/dwRnf5Df>  
13. Triangle judgement: <https://lnkd.in/dwzD-hFn>  
14. Biggest single number: <https://lnkd.in/d4F5zHDs>  
15. Not boring movies: <https://lnkd.in/d5w8_z65>  
16. Swap salary: <https://lnkd.in/dnbCtecM>  
18. Product sales analysis 1: <https://lnkd.in/dRj3EBuK>  
19. Project employees 1: <https://lnkd.in/dvGHsbKQ>  
20. Sales analysis III : <https://lnkd.in/d_y_rxPh>

[SQL learning platform](https://www.linkedin.com/pulse/clear-roadmap-mastering-sql-in2024-esther-anagu-mba-mqzif/)

[SQL Tutorial](https://www.scaler.com/topics/sql/) by Scaler

**Top platforms to learn SQL:**

1. [LearnSQL.com](http://learnsql.com/)
2. [DataCamp](https://app.datacamp.com/learn/career-tracks/data-analyst-with-sql-server)
3. [Codecademy](https://www.codecademy.com/learn/paths/analyze-data-with-sql)
4. Other platforms, free. [Find them here.](https://www.linkedin.com/feed/update/urn:li:activity:7170436978923057152/)

YouTube Playlists:

1. [Alex Freberg](https://www.linkedin.com/in/alex-freberg?miniProfileUrn=urn%3Ali%3Afs_miniProfile%3AACoAACKBepMBLKfH5NdyI7D-s_LOGybccBxv0ck)'s playlist on YouTube:[SQL Basic Tutorials](https://www.youtube.com/watch?v=RSlqWnP-Dy8&list=PLUaB-1hjhk8GT6N5ne2qpf603sF26m2PW&pp=iAQB)[SQL Intermediate Tutorials](https://www.youtube.com/watch?v=9URM1_2S0ho&list=PLUaB-1hjhk8HTgPnBukmMq7QTe83ANirL&pp=iAQB)[SQL Advanced Tutorials](https://www.youtube.com/watch?v=K1WeoKxLZ5o&list=PLUaB-1hjhk8EBZNL4nx4Otoa5Wb--rEpU&pp=iAQB)
2. Also, [Luke Barousse](https://www.linkedin.com/in/luke-b?miniProfileUrn=urn%3Ali%3Afs_miniProfile%3AACoAAB13TY0BU5dMujuC_za0rVodsRvi9B1pr7c) shared a tutorial recently, 3 days ago.[SQL Full Course](https://www.youtube.com/watch?v=7mz73uXD9DA)

**For further reading (This is for those who love reading books):**

1. SQL Notes for Professionals: [Get the PDF here](https://www.goalkicker.com/SQLBook/)
2. Learning SQL eBook (PDF): [Get the PDF here](https://riptutorial.com/ebook/sql)
3. Advanced SQL Programming by Joe Celkos: [Get it here](https://pdfroom.com/books/joe-celkos-sql-for-smarties-advanced-sql-programming-4th-edition/kLg8p9N3gZB/download)
4. MySQL Notes for Professionals: [Get The PDF here](https://www.goalkicker.com/MySQLBook/)

A diagram of a diagram

Description automatically generated

* **Data Manipulation Commands:** Insert, Update, and Delete data.
* **Data Definition Commands:** Define database structures (tables, columns).
* **Transaction Control Commands:** Control how data changes are committed or rolled back.
* **Data Control Commands:** Manage user access rights to the database.

**The Ultimate Guide to Learning SQL:**

**Step 1: Grasping Foundational Concepts**

The first step is to **grasp the foundational concepts of SQL.** This includes understanding basic SQL syntax, data types, and fundamental database principles. After grasping a solid understanding of these basic concepts, you can look at the complexities of SQL.

**Interactive Tutorials:**

* [Khan Academy - SQL Basics](https://www.khanacademy.org/computing/computer-programming/sql)
* [SQLBolt](https://sqlbolt.com/) (offers interactive exercises and visualizations)
* [W3Schools - SQL Tutorial](https://www.w3schools.com/sql/)

**Step 2: Basic SQL Queries (SELECT, INSERT, UPDATE, DELETE)**

The next step is to look at the basic SQL Queries. With the foundational concepts in place, you can move on to learning basic SQL queries. You can start with essential commands such as SELECT, INSERT, UPDATE, and DELETE, which form the building blocks of data manipulation. It is important to keep in mind that with practice, you will become proficient in creating these simple yet powerful SQL queries.

**Interactive Tutorials:**

* [SQLBolt](https://sqlbolt.com/lesson/select_queries_introduction) (practice writing basic queries)
* [HackerRank - SQL](https://www.hackerrank.com/domains/sql) (practice problems and competitions)

**Online Courses:**

* [Udemy - SQL Bootcamp](https://www.udemy.com/course/the-complete-2023-sql-bootcamp-go-from-zero-to-hero/)

**Step 3: Advanced Querying Techniques (WHERE Clauses, Sorting, Filtering)**

The third step is to explore advanced querying techniques for Data Manipulation and Filtering. Now, you are moving beyond the basics. Here, the topics covered include WHERE clauses for conditional filtering, sorting results, and limiting rows. You can efficiently extract relevant information from vast datasets.

**Interactive Tutorials:**

* [SQLBolt](https://sqlbolt.com/lesson/select_queries_with_constraints) (practice with WHERE clauses and filtering)
* [W3Schools - SQL WHERE Clause](https://www.w3schools.com/sql/sql_where.asp) (interactive WHERE clause tutorial)**Online Courses:**
* [DataCamp - SQL Courses](https://www.datacamp.com/courses/introduction-to-sql) (Querying Databases in SQL)

**Step 4: SQL JOIN Operations and Relationships**

The next step is to explore the SQL JOIN operations and Relationships. One of the key strengths of SQL lies in its ability to handle relational databases. Here, you will learn how to combine data from multiple tables based on specified relationships.

**Interactive Tutorials:**

* [SQLBolt](https://sqlbolt.com/lesson/select_queries_with_joins) (practice with JOINs)
* [W3Schools - MySQL JOIN](https://www.w3schools.com/mysql/mysql_join.asp) (interactive JOIN tutorial)**Online Courses:**
* [DataCamp - Joining Data in SQL](https://www.datacamp.com/courses/joining-data-in-sql) (SQL Joins)

**Step 5: Calculations on Grouped Data Using Aggregation**

The next step is performing calculations on grouped data using aggregation. Here, you will learn the essential aggregate functions such as SUM, COUNT, AVG, and MIN/MAX. Additionally, you will learn the GROUP BY clauses for grouping data and generating summary statistics. It is a crucial skill for data analysis and reporting.

**Interactive Tutorials:**

* [SQLBolt](https://sqlbolt.com/lesson/select_queries_with_aggregates) (practice with aggregation functions)
* [W3Schools - SQL Aggregate Functions](https://www.w3schools.com/sql/sql_aggregate_functions.asp) (interactive aggregation tutorial)**Online Courses:**
* [Coursera - Google Data Analytics](https://www.coursera.org/professional-certificates/google-data-analytics) (Introduction to SQL for Data Science) (covers basic aggregations)

**Step 6: Subqueries and Nested Queries**

Here, you learn how to retrieve data based on the results of another query. Through practical examples, you will discover how to leverage subqueries effectively to solve complex data retrieval tasks.

**Interactive Tutorials:**

* [SQLBolt](https://sqlbolt.com/) (practice with subqueries)
* [W3Resource - MySQL Subqueries](https://www.w3resource.com/mysql/subqueries/index.php) (interactive subquery tutorial)**Online Courses:**
* [SQLBolt](https://sqlbolt.com/topic/subqueries) (advanced SQL querying course) (covers subqueries)
* [Coursera - Google Data Analytics](https://www.coursera.org/professional-certificates/google-data-analytics) (Introduction to SQL for Data Science) (briefly covers subqueries)

**Step 7: Advanced SQL Topics (Window Functions, CTEs, Stored Procedures)**

For those seeking to take their SQL skills to the next level, you can explore advanced topics such as window functions, common table expressions (CTEs), and stored procedures. These advanced features enable users to tackle more complex data analysis tasks and streamline database operations.

**Interactive Tutorials:**

* [SQLBolt](https://sqlbolt.com/) (practice with window functions)
* [W3Schools Blog - SQL CTE](https://www.w3schools.blog/sql-cte-how-to-master-it-with-easy-examples) (interactive CTE tutorial)
* [W3Schools - SQL Stored Procedures](https://www.w3schools.com/sql/sql_stored_procedures.asp) (interactive stored procedures tutorial)**Online Courses:**
* [Udacity - SQL Nanodegree Program](https://www.udacity.com/course/learn-sql--nd072) (various courses cover advanced SQL topics)

**Final Step: Practical Projects and Case Studies**

While theory is essential, practical application is where true mastery is achieved. I encourage you to apply your SQL skills to real-world projects and case studies.

Here are the SQL-related projects you can work on:

1. [Practice Projects in SQL - Codecademy](https://www.codecademy.com/projects/language/sql/practice)
2. [Datasets for SQL practice - Kaggle](https://www.kaggle.com/datasets?search=sql)
3. SQL Data Analytics Project [(Part 1)](https://youtu.be/GHtX0QXfi6g?feature=shared) and [(Part 2)](https://youtu.be/D0-Qy7yk5TQ?feature=shared)
4. Other projects can be found [here](https://www.linkedin.com/analytics/post-summary/urn:li:activity:7155537270958153729/)