Problem: Combine Two Tables
Link: https://leetcode.com/problems/combine-two-tables/submissions/1657797168
Level: Easy
My approach: Joining tables on personid, as this was what both tables had in common.
What I learned: Doing a normal join would not work, it is important to do a left join so that every person (even those who did not provide their addresses) would be present in the output.

Problem: Rank Scores
Link: https://leetcode.com/problems/rank-scores/submissions/1657973927
Level: Medium
My approach: Use the Dense Rank Window function as I don't want any ranks who are tied to lead to the next rank being skipped.
What I learned: When I want the title "rank", I need to put it in quotation marks otherwise the function won't work.

Problem: Customers Who Never Order
Link: https://leetcode.com/problems/customers-who-never-order/submissions/1657990369
Level: Easy
My approach: It is easier to work backwards with this problem. First find the full ID list from Orders, then determine which ID's from Customers are not part of the list previously retrieved.
What I learned: I first tried it using '=null', this made me realise that IS NULL and =Null are not the same.

Problem: Average Time of Process per Machine
Link: https://leetcode.com/problems/average-time-of-process-per-machine/submissions/1658003948
Level: Easy
My approach: First figure out how to calculate the processing time. Use the ‘if’ function to set the start time as a positive and the end time as a negative to get the total time per process.
What I learned: Also break the problem into sections to make it easier.

Problem: Big Countries
Link: https://leetcode.com/problems/big-countries/submissions/1661196681
Level: Easy
My approach: Use the WHERE function.
What I learned: This problem was pretty straight forward using “where” and “or” to filter through the data.

Problem: Recyclable and low fat products
Link: https://leetcode.com/problems/recyclable-and-low-fat-products/submissions/1661200515
Level: Easy
My approach: Using WHERE
What I learned: This problem was pretty straight forward using “where” and “and” to filter through the data.

Problem: List the products ordered in a period
Link: https://leetcode.com/problems/list-the-products-ordered-in-a-period/submissions/1661217424
Level: Easy
My approach: Joining the two tables based on the mutual product_id.
What I learned: This was a reminder that when I use both the WHERE and the HAVING function, that the WHERE function should always come first.

Problem: User Activity for the Past 30 Days
Link: https://leetcode.com/problems/user-activity-for-the-past-30-days-i/submissions/1661716872
Level: Easy
My approach: Grouping by activity date
What I learned: Reminder to count distinct user-id if we based the count on individual users.

Problem: Swap Salary
Link: https://leetcode.com/problems/swap-salary/submissions/1661735396
Level: Easy
My approach: Use the update function
What I learned: First name the table you want to update, then ‘set’ the column name you want to work with, then use Case to make changes.

Problem: Tree Node
Link: https://leetcode.com/problems/tree-node/submissions/1662704288
Level: Medium
My approach: Use CASE
What I learned: Creating a subquery and using “in” to retrieve fields that are in from that subquery.

Problem: Students and Examinations
Link: https://leetcode.com/problems/students-and-examinations/submissions/1662725903
Level: Easy
My approach: Use cross join to join all the subjects with all the students.
What I learned: Distinct count should not be used in this problem. Use cross join to assign each and every subject to every student.

Problem: Delete duplicate emails
Link: https://leetcode.com/problems/delete-duplicate-emails/submissions/1662970189
Level: Easy
My approach: Do a self join
What I learned: Join the tables based on the identical emails, then use “Where” to find the table with the bigger id, this table should then be deleted.

Problem: Project Employees
Link: https://leetcode.com/problems/project-employees-i/submissions/1663629201
Level: Easy
My approach: Use a join and group by project-id.
What I learned: This was a pretty straight forward problem where results were required to be rounded up to two decimals.

Problem: Replace Employee Id with the Unique Identifier
Link: https://leetcode.com/problems/replace-employee-id-with-the-unique-identifier/submissions/1663639072
Level: Easy
My approach: Use a right join
What I learned: This problem wants to include all the names of the employees even if their unique identifier is null, therefore we use a right join.

Problem: Restaurant Growth
Link: https://leetcode.com/problems/restaurant-growth/submissions/1663681809
Level: Medium
My approach: Use a window function
What I learned: The average option did not work, I had to use a sum function and then divide it by seven myself. Also, to exclude the first 6 days I used ‘offset’.

Problem: Employees earning more than their managers
Link: https://leetcode.com/problems/employees-earning-more-than-their-managers/submissions/1681941762
Level: Easy
My approach: Use inner join
What I learned: Use a self join table and match the managerId with the original id.

Problem: Duplicate emails
Link: https://leetcode.com/problems/duplicate-emails/submissions/1706002500
Level: Easy
My approach: Group by email
What I learned: Group by email and check where there is a count higher than 1.

Problem: The number of employees which report to each employee
Link: https://leetcode.com/problems/the-number-of-employees-which-report-to-each-employee/submissions/1706025401
Level: Easy
My approach: Self join
What I learned: Use self join and use the second table to create the reports to column.

Problem: Nth highest salary
Link: https://leetcode.com/problems/nth-highest-salary/submissions/1706047567
Level: Medium
My approach: Dense rank
What I learned: Use the dense rank function to get the Nth position

Problem: Queries quality and percentage
Link: https://leetcode.com/problems/queries-quality-and-percentage/submissions/1584644483
Level: Easy
My approach: Group by
What I learned: Calculate the quality by using sum and count, then calculate the quality percentage of the columns with ratings under 3.

Problem: Consecutive numbers
Link: https://leetcode.com/problems/consecutive-numbers/submissions/1586057878
Level: Medium
My approach: Lag and Lead
What I learned: Use the lag function to see what number appeared before the current number, and u se the lead function to see what number appeared after the current number, if all they are both identical to current number, those should be shown in results.

Problem: Human traffic of stadium
Link: https://leetcode.com/problems/human-traffic-of-stadium/submissions/1706254878
Level: Hard
My approach: CTE
What I learned: Create a CTE to eliminate where people count is less than 100, then do a select based on that.