Exercise 3.7

1. Write a query to find the top 10 countries for Rockbuster in terms of customer numbers. (Tip: you’ll have to use GROUP BY and ORDER BY, both of which follow the join.)
   * Copy-paste your query and its output into your answers document.

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* + Write a few sentences on how you approached this query and why. You must be able to explain your thought process when writing queries, especially for future interviews.
    - Goal: find the top 10 countries for Rockbuster in terms of customer numbers
      1. In order to find the top 10 countries, we first had to find the countries of all the customers. The only way to do that was to reference the address connected to the customer to find out what country they were from.
      2. In order to find the city, we needed to connect the tables from customer to address, then from address to city, and then from city to country.
      3. We then had to group by country since we used an aggregate function earlier on(this was to add the count of customers in each country since the original goal was to find the top 10 countries in terms of customer numbers). We order in descending order of the amount of customers so the country with the largest number of customers is first.
      4. Finally, we limited by 10 since we only want the top 10 countries.

1. Next, write a query to identify the top 10 cities that fall within the top 10 countries you identified in step 1. (Hint: the top 10 cities can be in any of the countries identified—you don’t need to create a separate list for each country.)
   * Copy-paste your query and its output into your answers document.

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* + Write a short explanation of how you approached this query and why.
    - Goal: identify the top 10 cities that fall within the top 10 countries you identified in step 1
      1. This query is basically the same as the first, but with the added city value.
      2. Since we still need to find the top 10 countries, I kept the original query, and simply sub-queried it inside of a WHEN IN command to make sure all the cities are cities found in the original top 10 countries.
      3. Then I added the main query to search for the cities, grouped them by the city and country, and ordered them by descending customer amounts with a limit of 10 as per the request.

1. Now write a query to find the top 5 customers from the top 10 cities who’ve paid the highest total amounts to Rockbuster. The customer team would like to reward them for their loyalty!
   * Tip: After the join syntax, you’ll need to use the WHERE clause with an operator, followed by GROUP BY and ORDER BY. Your output should include the following columns: Customer ID, Customer First Name and Last Name, Country, City, and Total Amount Paid.
   * Copy-paste your query and its output into your answers document.

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