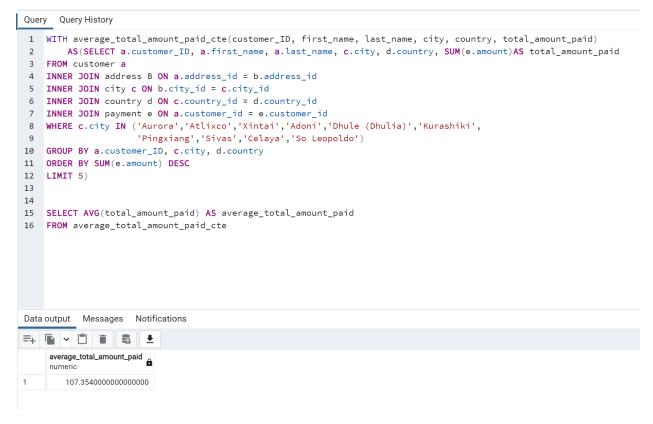
## Step 1



Changing this subquery to a CTE was not difficult. A lot of the syntax stayed the same, and I only created one CTE, so it easily follows the syntax of the original subquery. I created the WITH statement first, and then added the SELECT statement at line 15.



Here, I created two CTEs, so the process was more difficult. I found it helpful to start with the syntax from the original subquery, and then change the first two lines of the CTE depending on what I want them to do. Then, I rewrote the SELECT statement from line 23.

## Step 2

I thought that the CTEs would perform better because they are basically functions that you can call as you wish, and that allows you to not have to rewrite as much code if you want to make changes. Every query gave me a different runtime each time that I ran it. On average however, the CTEs had lower runtimes than the subqueries.

## Step 3

At first, I tried to write the CTEs from scratch, which resulted in a lot of mistakes. For example, I didn't alias properly. When I copied the subqueries into the editor and then made changes, it was much easier. Another thing that helped was separating the CTEs from the main statement while I was working on them. Breaking the code down into sections helps it feel less overwhelming, and I can just focus on one piece at a time.