Practice 01

Task 1

Modify the given function fn\_mid to create a new function named **fn\_right\_part** that extracts the last **N** characters from a given input string. Instead of using the substring function, use the **RIGHT()** function to achieve this.

1. Define the function using CREATE OR REPLACE FUNCTION.
2. The function should return the last **N** characters of the input string.
3. Test your function by extracting the last **5** characters from **"Geographic"**.

Task 2.

Create a function named **fnLatLonToUTM** that converts a given latitude and longitude into approximate **UTM-like** coordinates using a simple transformation.

1. The function should take two **INOUT** parameters: latitude and longitude.
2. Convert the latitude and longitude into approximate UTM coordinates using the following formulas:
   * **Easting (x) = (longitude + 180) \* 5000**
   * **Northing (y) = (latitude + 90) \* 10000**
3. Call the function using SELECT fnLatLonToUTM(40.7128, -74.0060) and verify the output.

Task 3

Modify the given function subway\_filter to create a new function named **subway\_multi\_filter** that allows filtering subway stations by multiple boroughs using an **array parameter**.

1. The function should take **one parameter**, borough\_names, which is an array of type VARCHAR[].
2. **Filtering with Arrays**: Use the ANY() operator to check if a column value exists in an array

**Task 4**

Modify the given function **dynamic\_subway\_filter** to allow filtering subway stations by multiple colors. Using name = ‘7th Ave’ as the filtering condition.

Provide the SQL and Screenshot of your map.