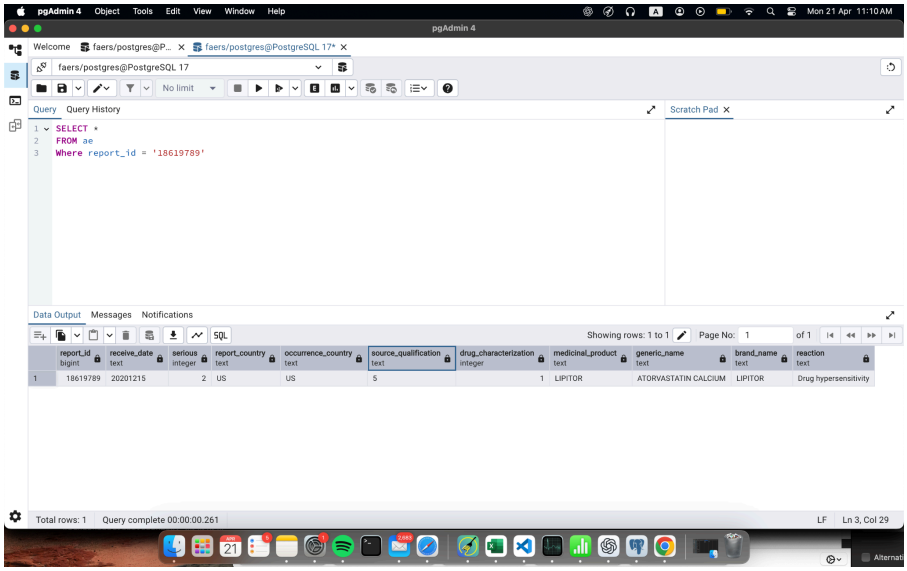
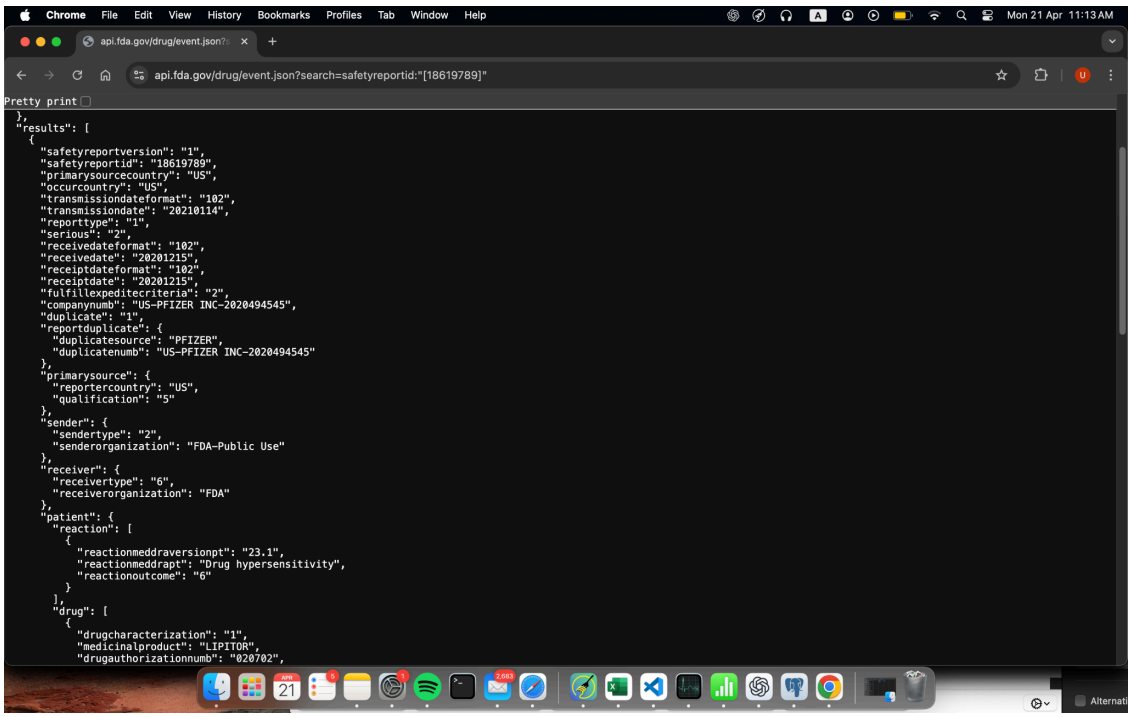
1. **Test Case: API Query Verification**
   Select a random report ID, search for it using the API query, and verify that the API result matches the downloaded data.

SQL Query:

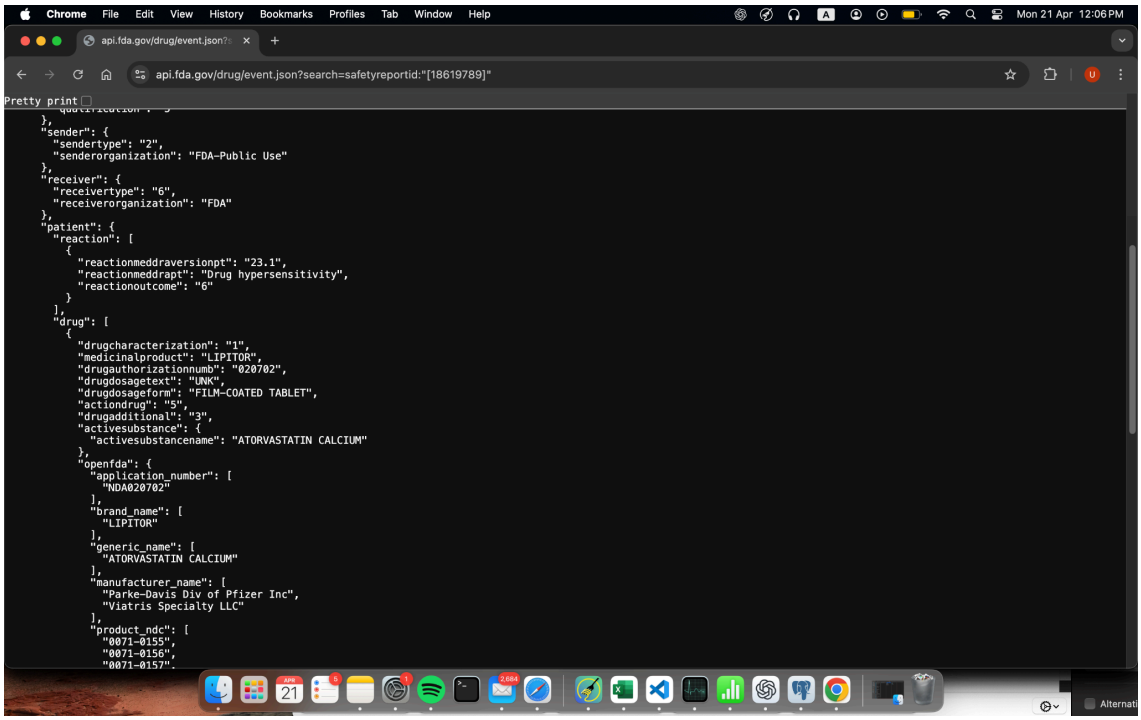


API query:

a. Verifying Report ID, serious, received date, report country, occurrence country, drug characterization, medicinal product:

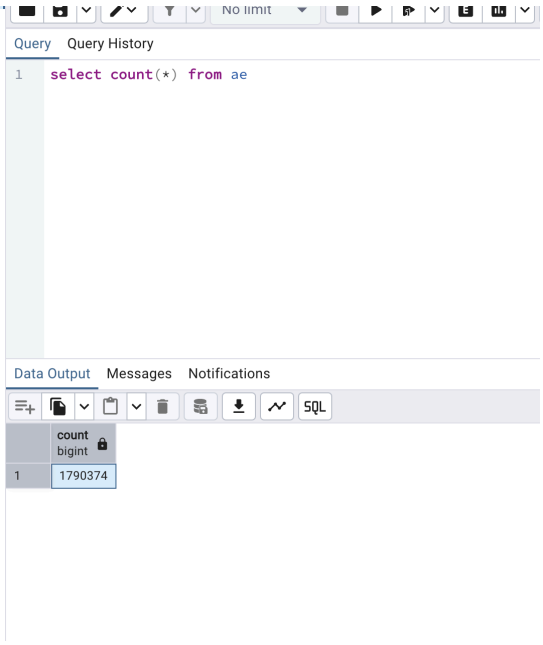


b. Verifying Reaction, generic_name

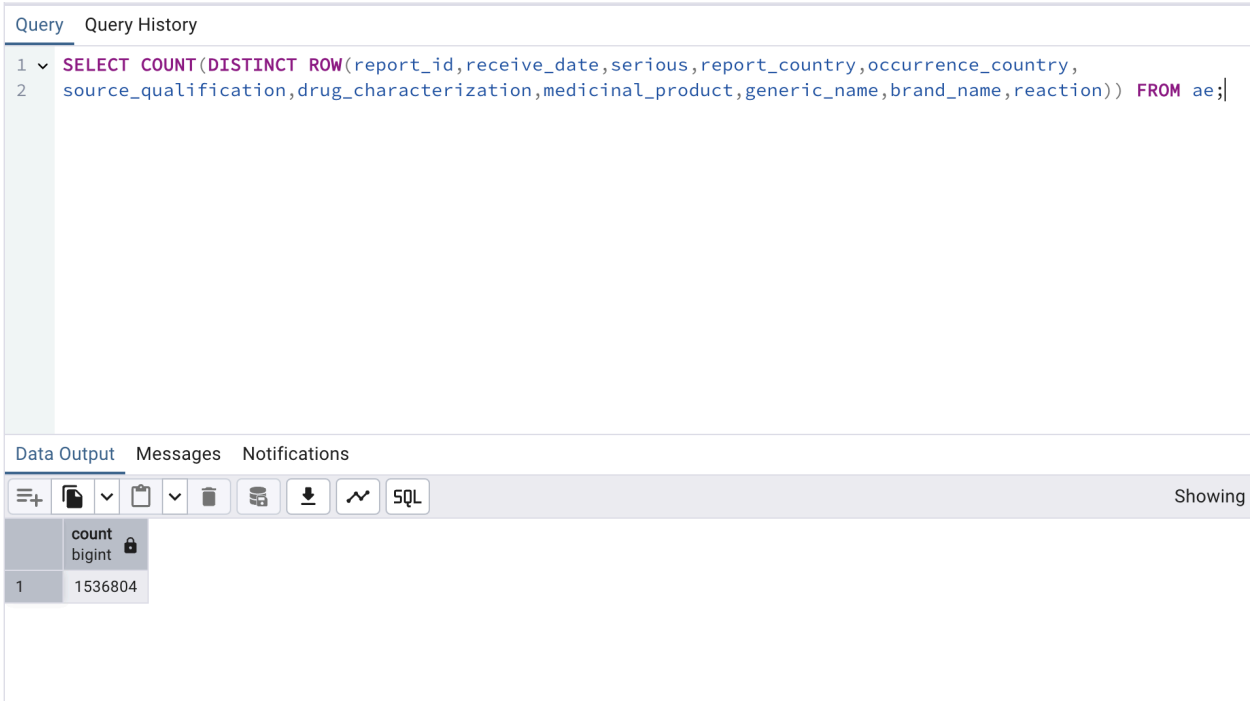


2. Test case: Verifying row-count of the downloaded data

Total no. of rows: 1790374



Unique record count: 1536804



3. **Test case: Cleaning the downloaded data.**

a. Merging the NULL values: ‘source_qualification’ column has both NULL and ‘NULL’ (as a string) values.

b. Clean and download the data.
Data cleaning summary:

i. Removed duplicate records

ii. Filtered the dataset to include only records where receive_date falls within the year 2020

iii. Retained only those records where generic_name contains **Atorvastatin**, **Rosuvastatin**, or **Simvastatin**.

iv. Excluded records where drug_characterization is **NULL**, ensuring each drug entry has a defined role in the report.

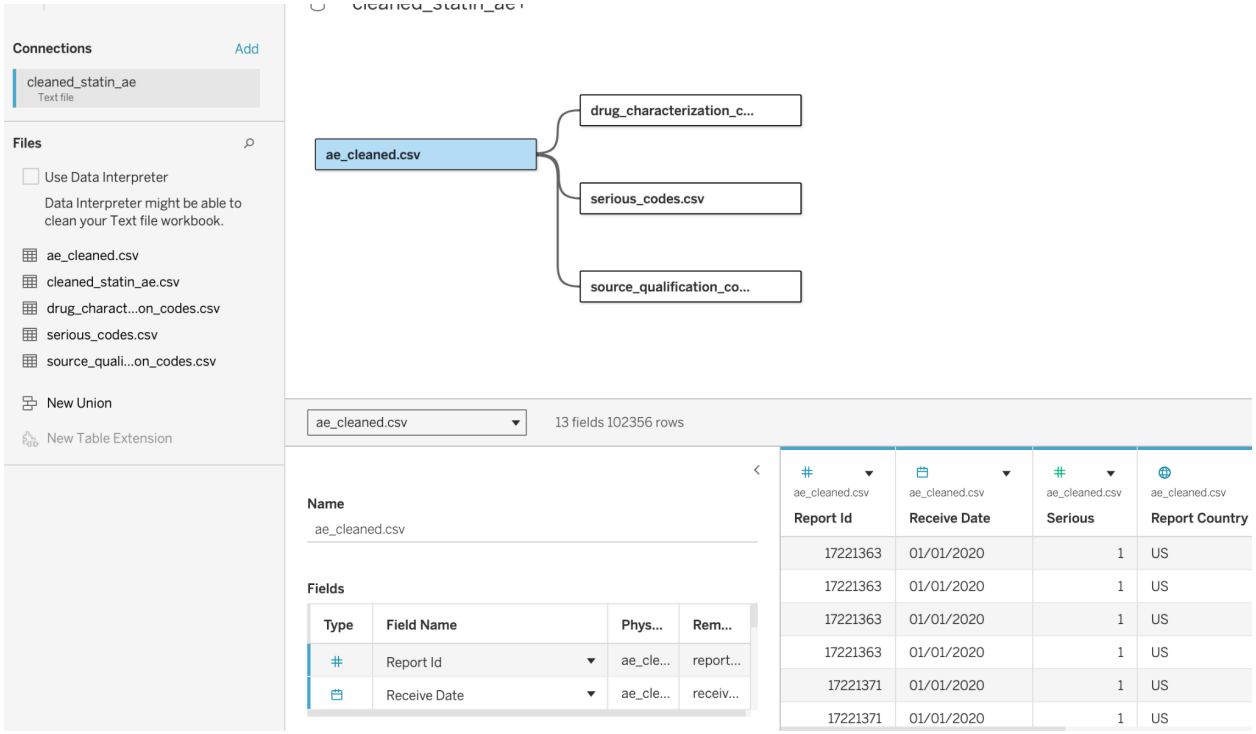
```
with clean as (
    select distinct report_id, receive_date, serious, report_country, occurrence_country, source_qualification,
                    drug_characterization, medicinal_product, generic_name, brand_name, reaction
    from ae
    where
            (receive_date >= '20200101' and receive_date<'20210101') and
            (generic_name like '%SIMVASTATIN%' or
            generic_name like '%ATORVASTATIN%' or
            generic_name like '%ROSUVASTATIN%') and
            (drug_characterization is not NULL)
            order by report_id
)
select * from clean
```

Output Messages Notifications

Showing rows: 1 to 1000

report_id bigint	receive_date text	serious integer	report_country text	occurrence_country text	source_qualification text	drug_characterization integer	medicinal_product text
17221363	20200101	1	US	US	[null]	2	CRESTOR
17221363	20200101	1	US	US	[null]	2	CRESTOR
17221363	20200101	1	US	US	[null]	2	SIMVASTATIN.
17221363	20200101	1	US	US	[null]	2	SIMVASTATIN.
17221371	20200101	1	US	US	5	2	ROSUVASTATIN CALCIUM.
17221371	20200101	1	US	US	5	2	ROSUVASTATIN CALCIUM.
17221377	20200101	1	US	US	5	2	LIPITOR

Downloading results...

4. Test case: Connecting data to Tableau

Importing the cleaned data (fact table) and connecting it with the dimension tables