CSCI 5408

DATA MANAGEMENT AND WAREHOUSING

LAB-7: BUSINESS INTELLIGENCE AND IBM COGNOS ANALYTICS

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Account Setup

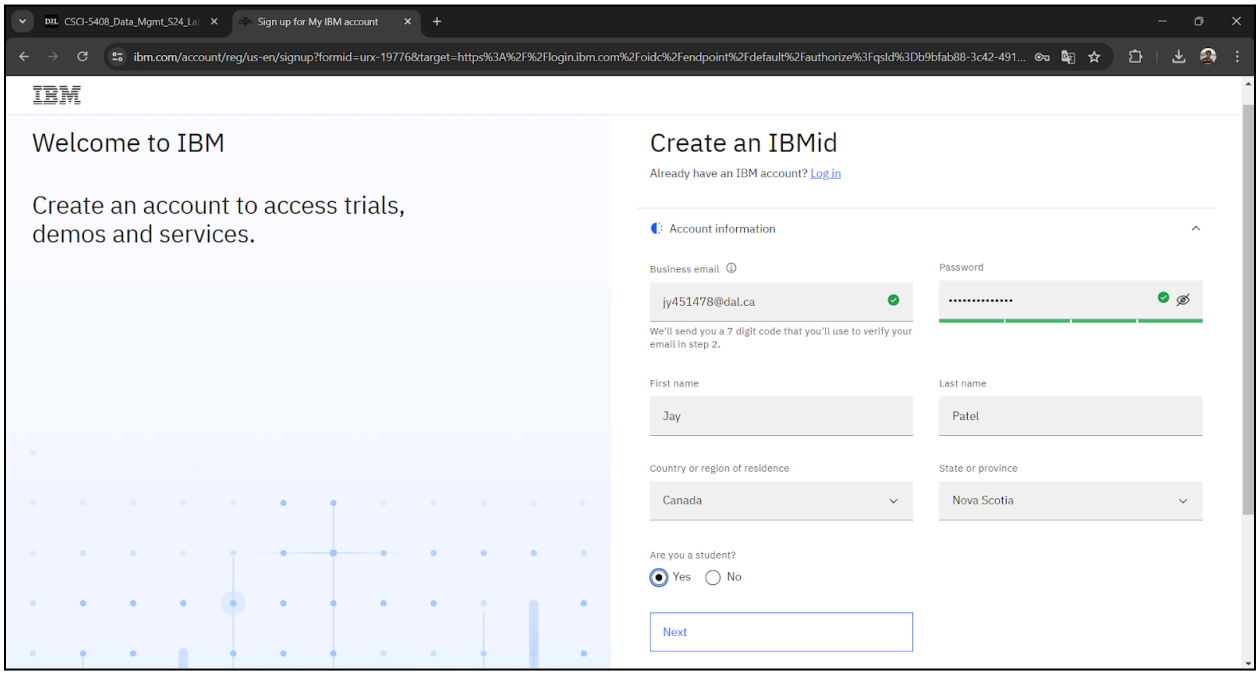

Figure 1: Create an IBM account with Dalhousie mail ID.

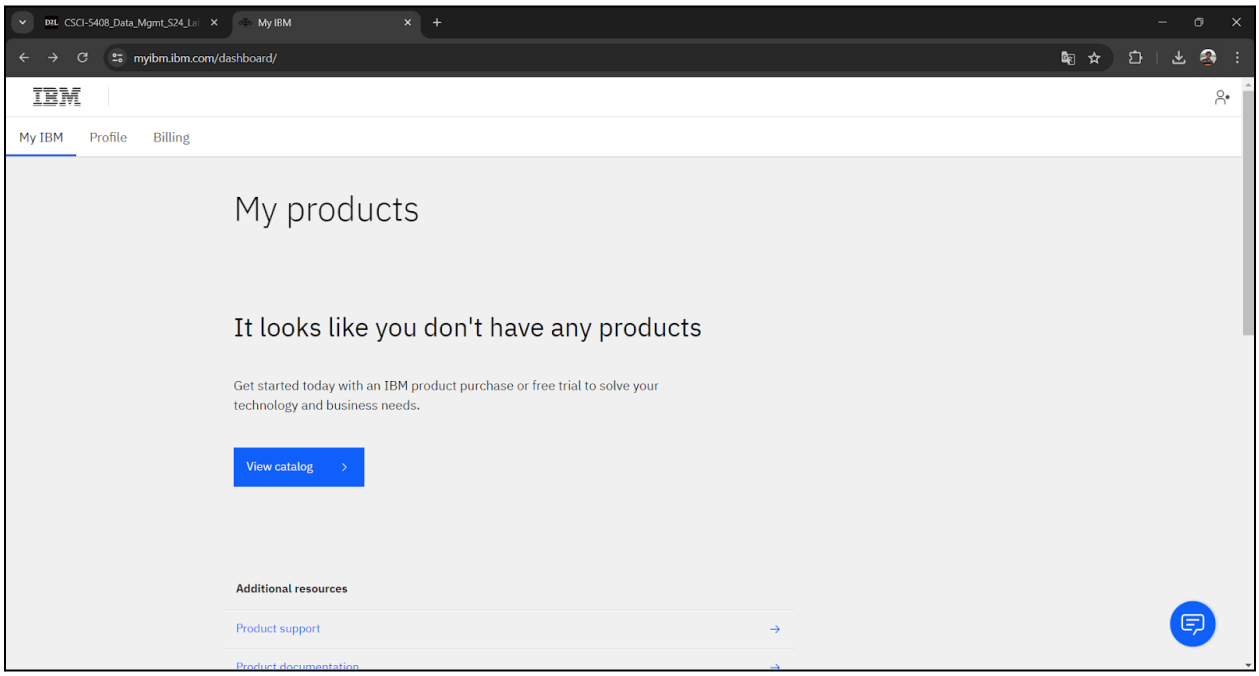

Figure 2: Account is successfully created.

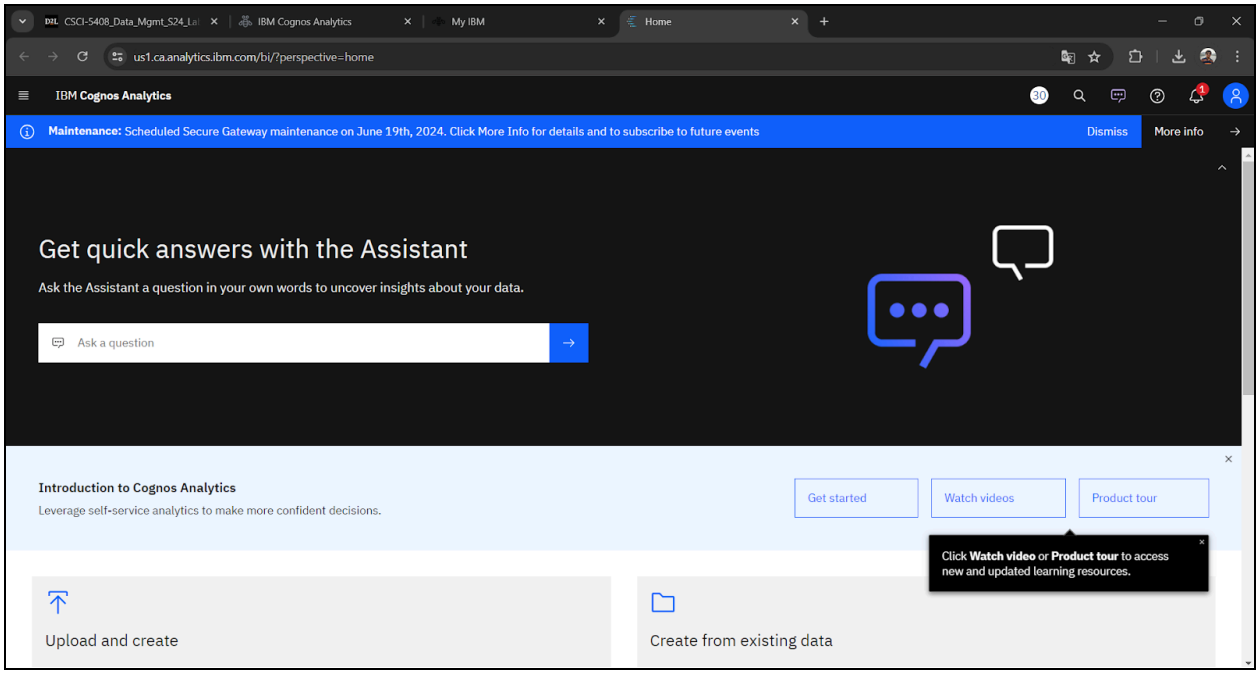

Figure 3: IBM Cognos Analytics Dashboard

Upload Dataset

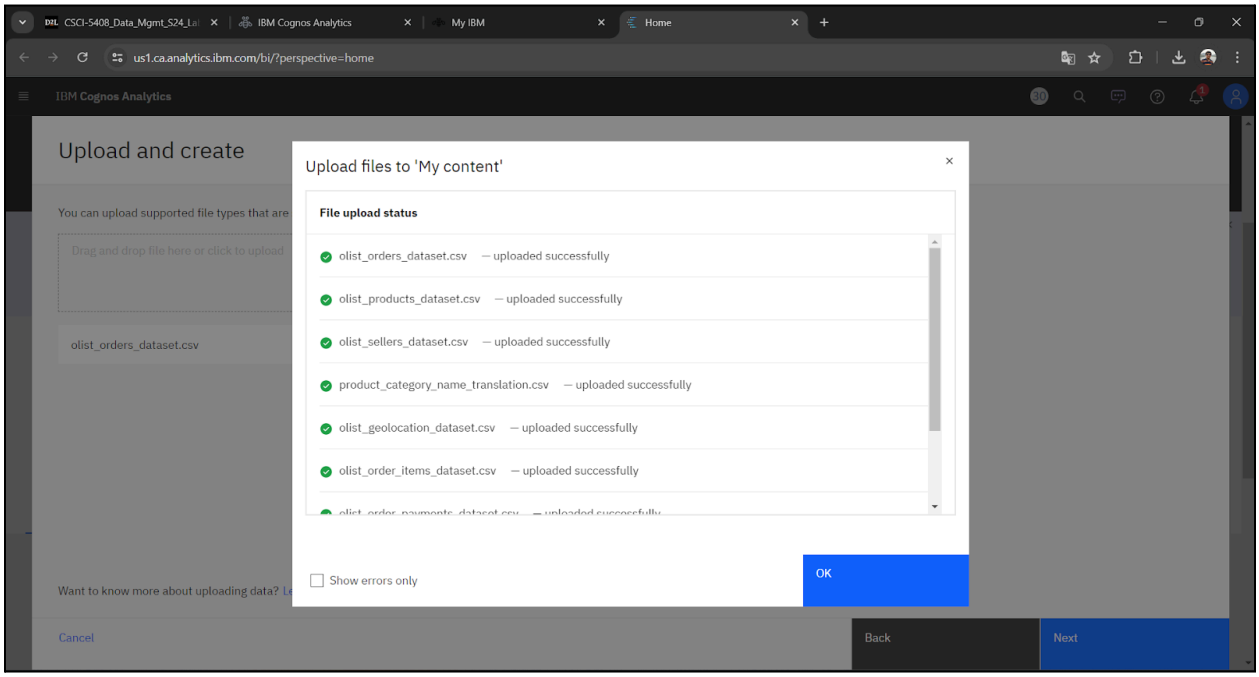

Figure 4: Upload all the CSV files from the Brazilian E-Commerce Public Dataset.

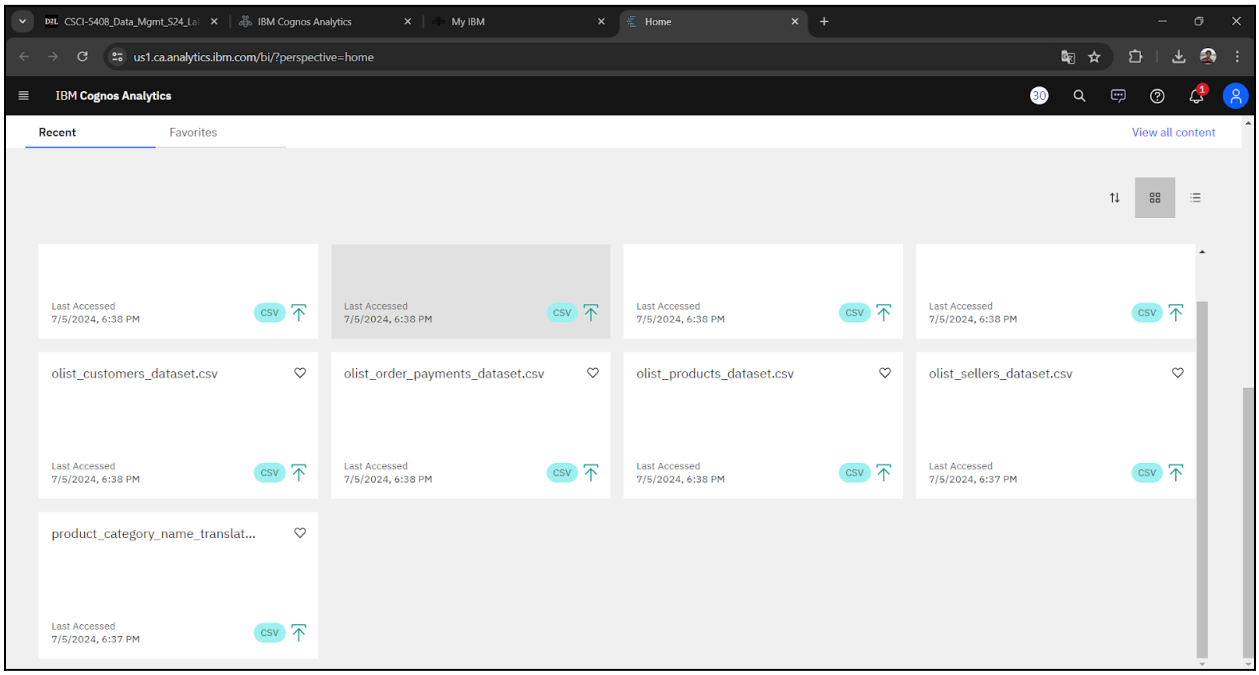

Figure 5: All the CSV are uploaded successfully.

Relationships

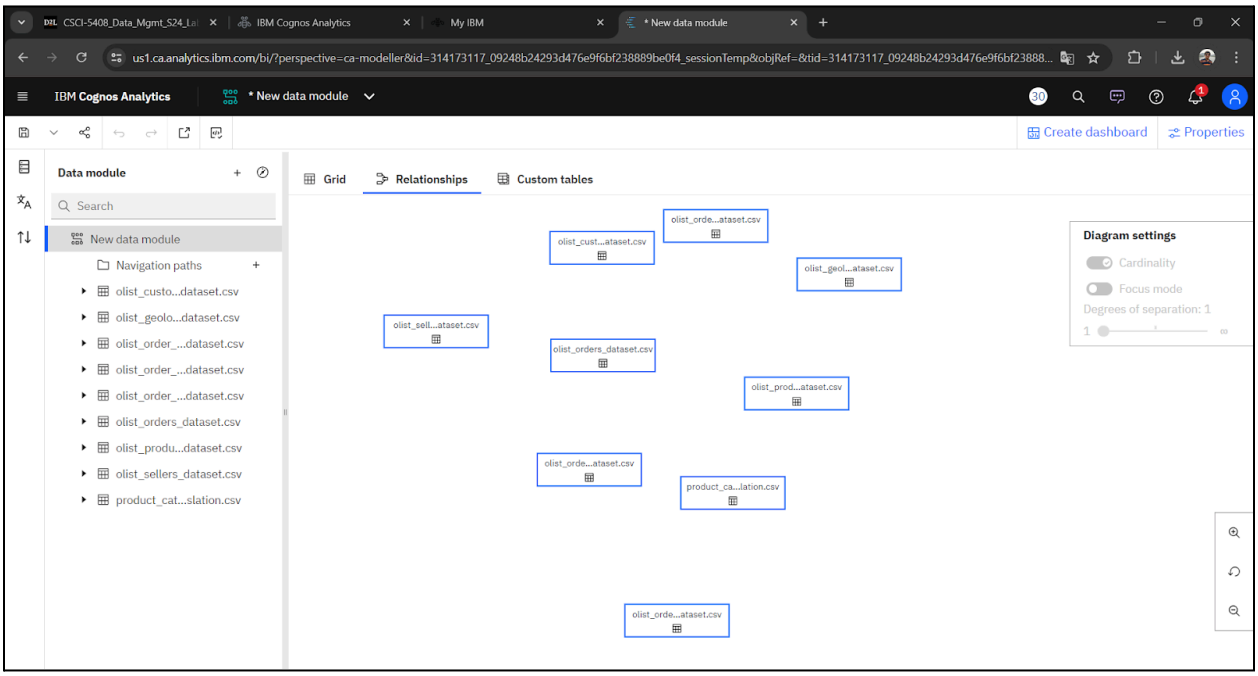

Figure 6: Before any relationship is established.

- *Here I established the first relationship between order and order_items table. Both tables have order_id so I establish a connection based on that column.*

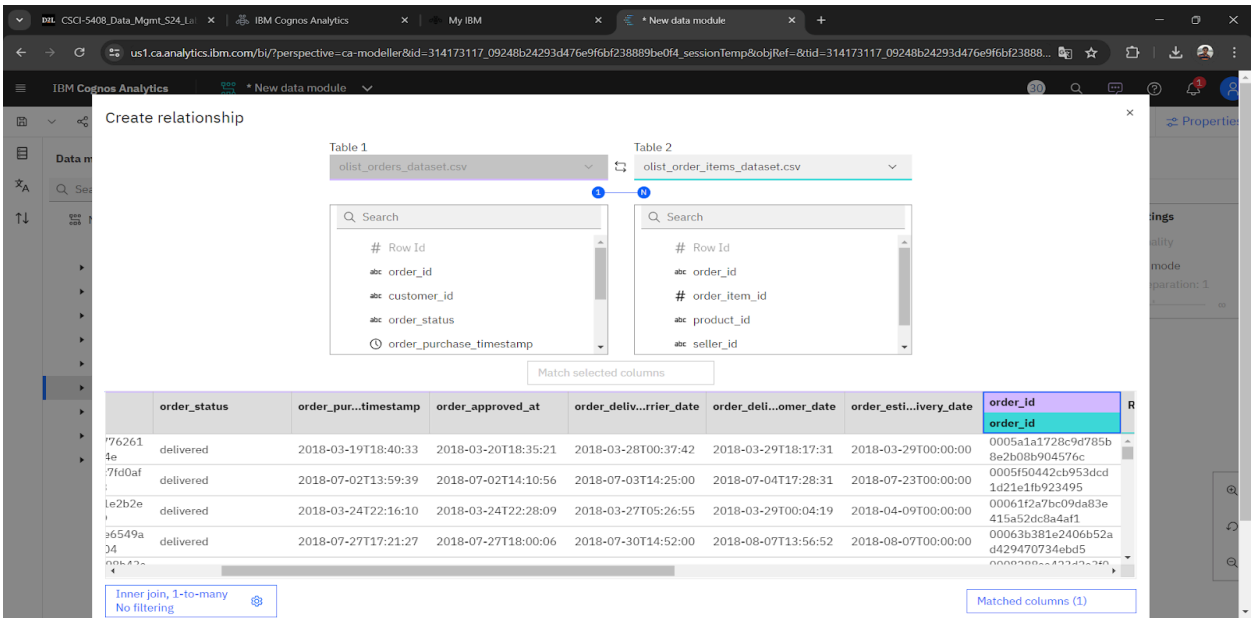

Figure 7: First Relationship between Orders and Order_Items tables.

- Now I create a second relationship between orders and order_reviews. The same situation happens as we see earlier, both tables have order_id so I connect them based on that column.

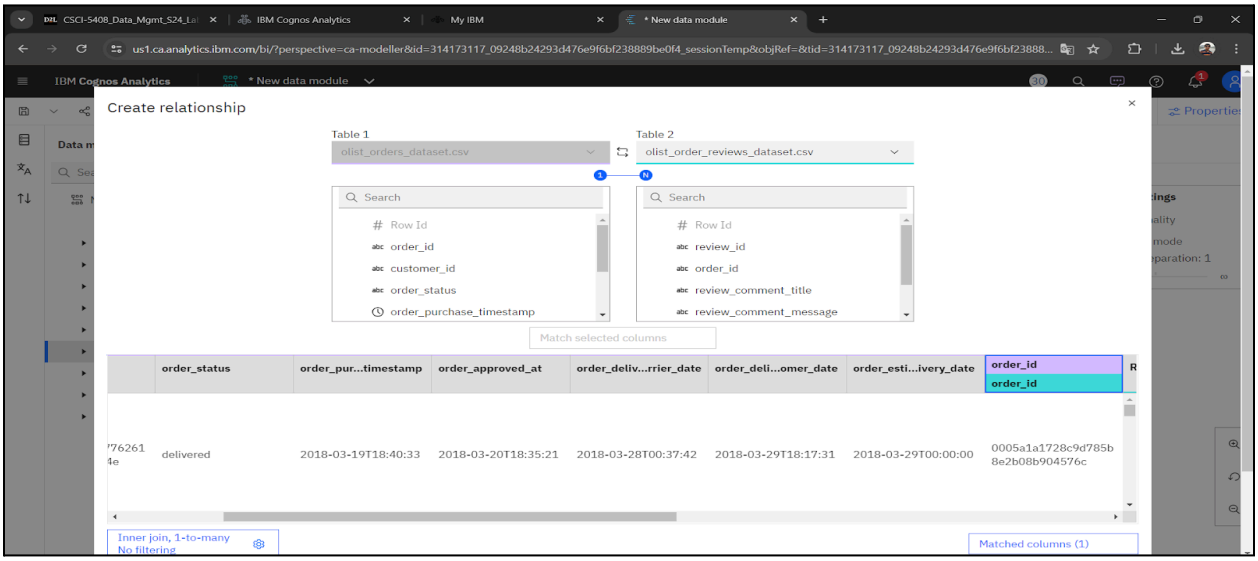

Figure 8: Second Relationship between Orders and Order_Reviews table

- Lastly, I established a relationship between orders and order_payments. The same order_id is used to connect them as we see in the last two cases.

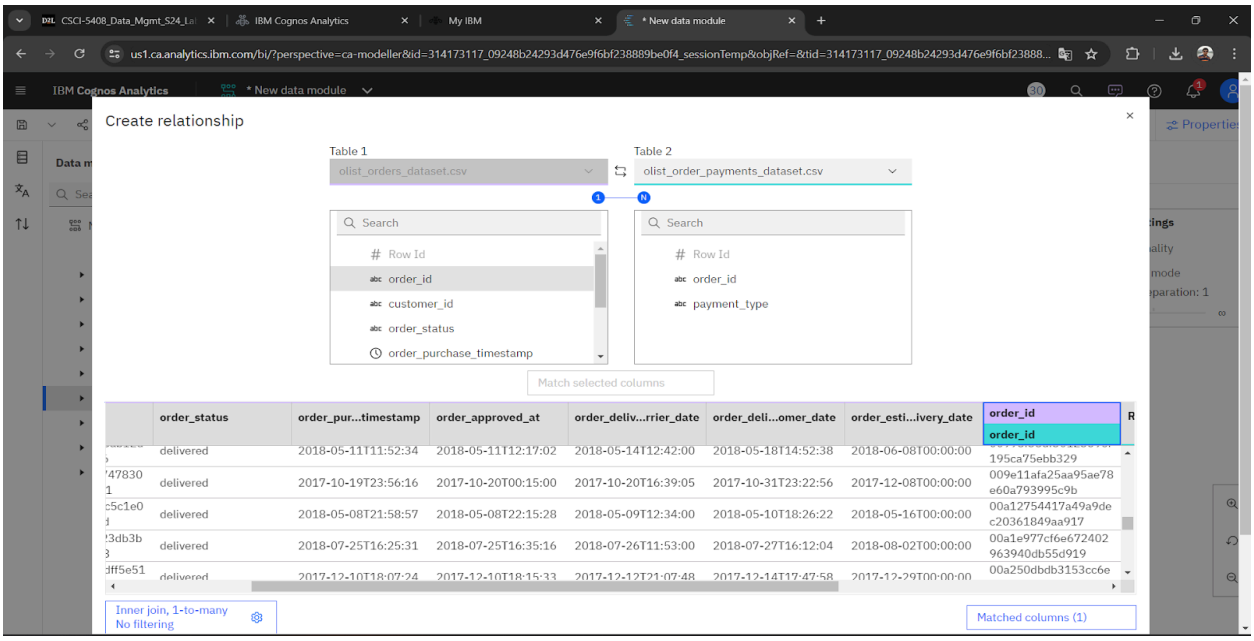

Figure 9: Third Relationship between Orders and Order_Payments tables.

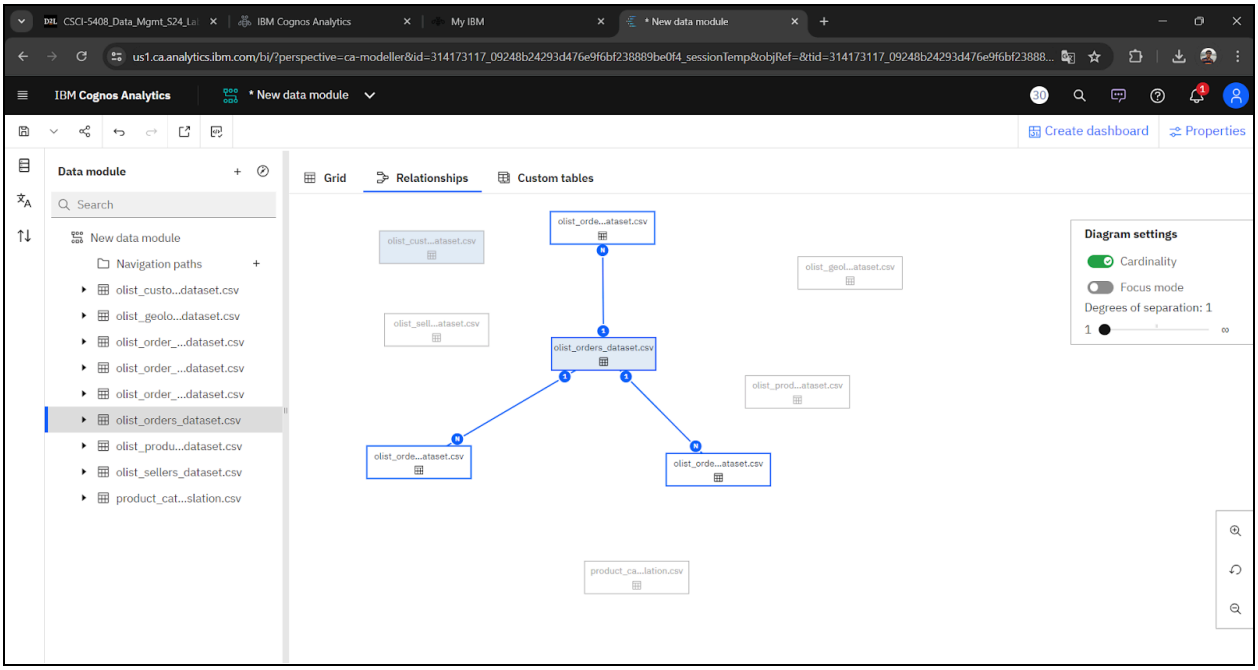

Figure 10: star schema after all three relationships are established.

Bar Chart

- I selected Lab7 as a data source to create a bar chart, because previously we uploaded all the datasets into Lab7.

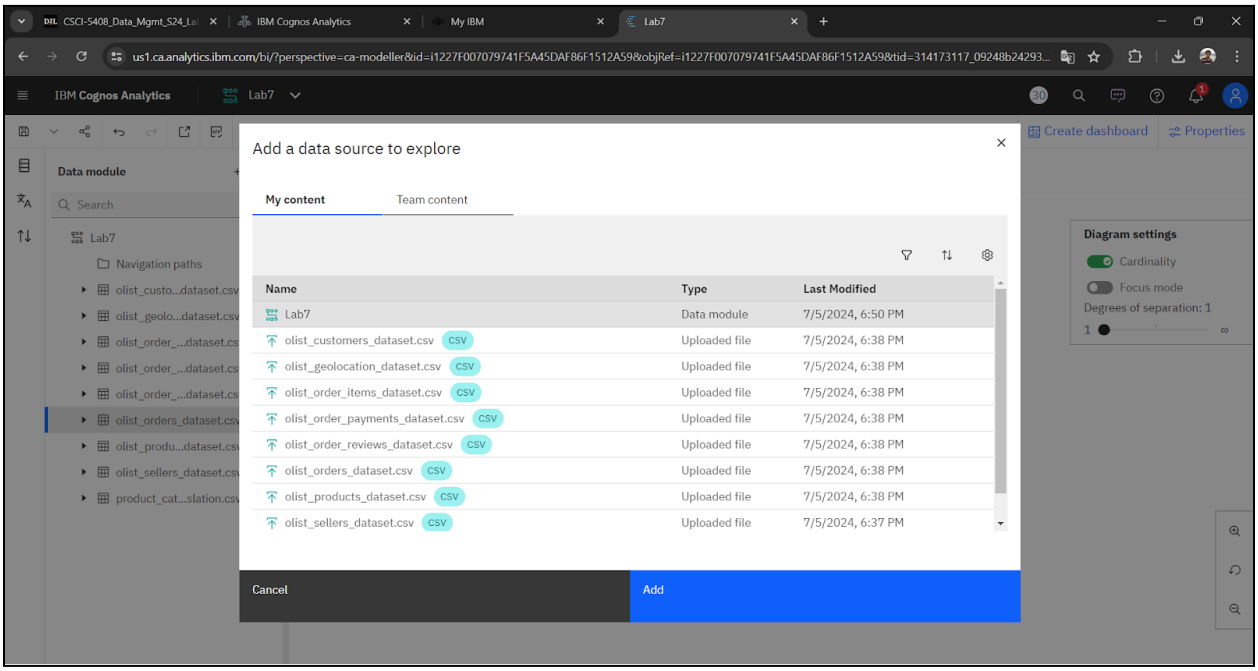

Figure 11: Selection of database for creating a bar graph.

- Name of Visualization: Bar Chart
- Columns: payment_type from order_payment, and order_id from orders.
- Description: The total number of results for order_id, across all payment_type, is almost 104 thousand. credit_card is the most frequently occurring category of payment_type with a count of 76,795 items with order_id values (73.9 % of the total).

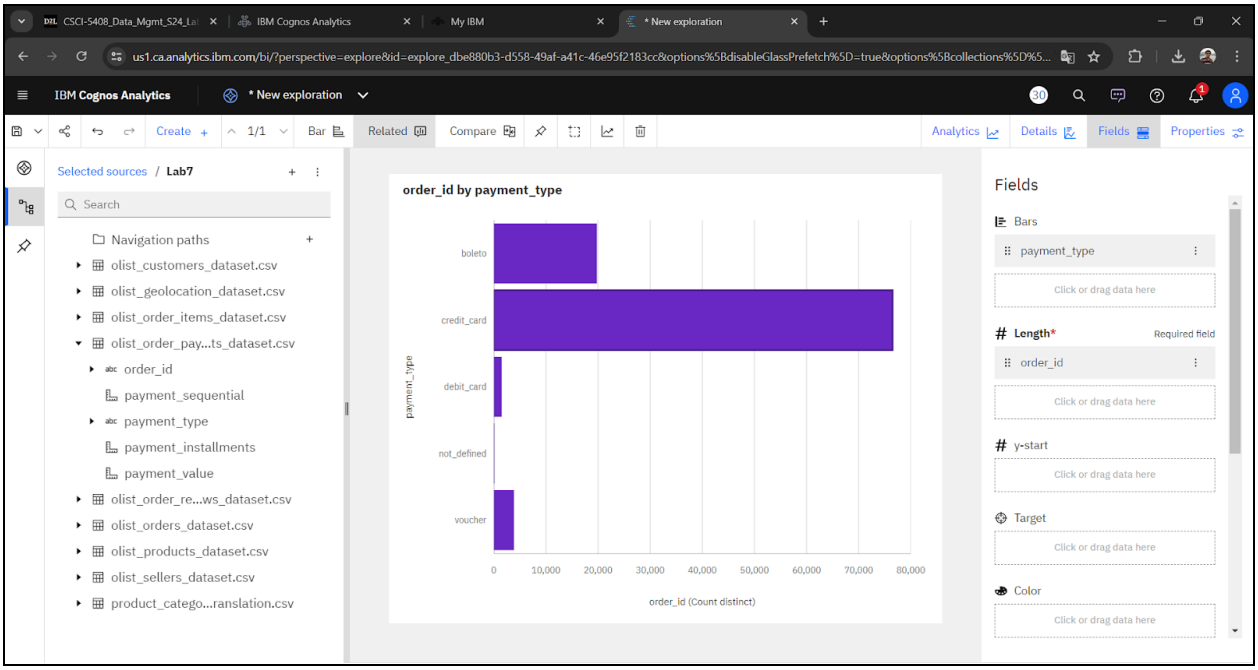

Figure 12: Barc chart of payment_type(Order_Payments) Vs order_id(Orders).

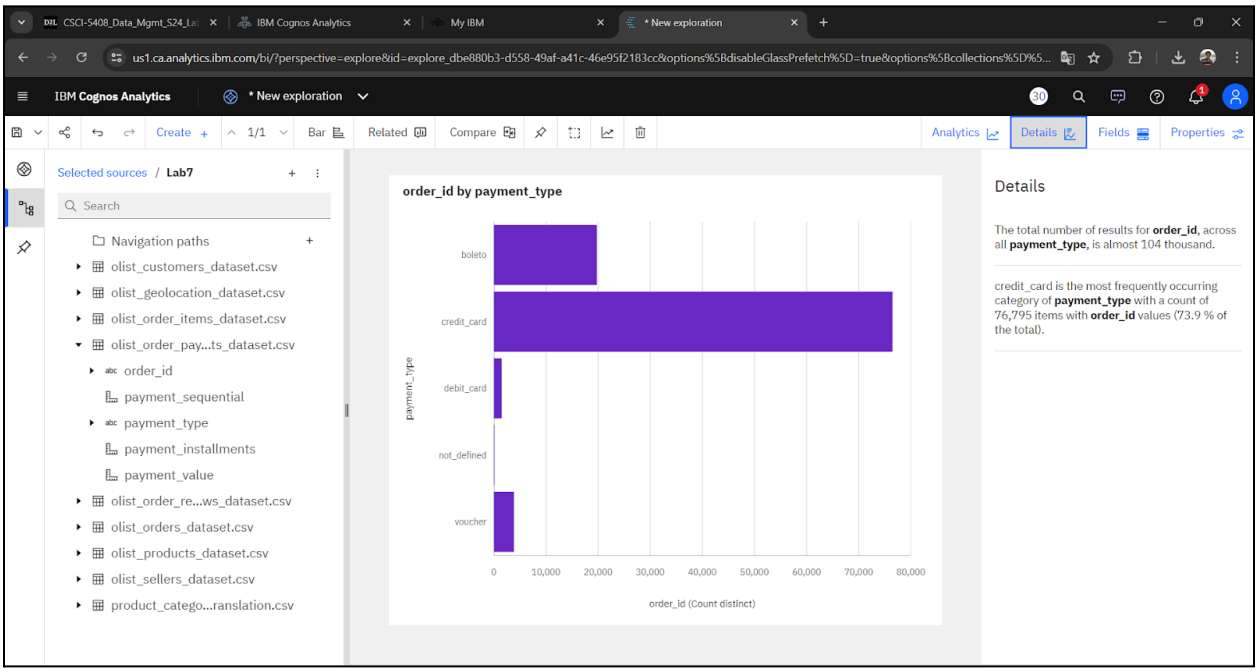

Figure 13: Details of payment_type(Order_Payments) Vs order_id(Orders) bar chart.

- Name of Visualization: Bar Chart
- Columns: seller_city from sellers, and seller_id from sellers.
- Description: The total number of results for seller_id, across all seller_city, is over three thousand. sao paulo is the most frequently occurring category of seller_city with a count of 694 items with seller_id values (22.4 % of the total).

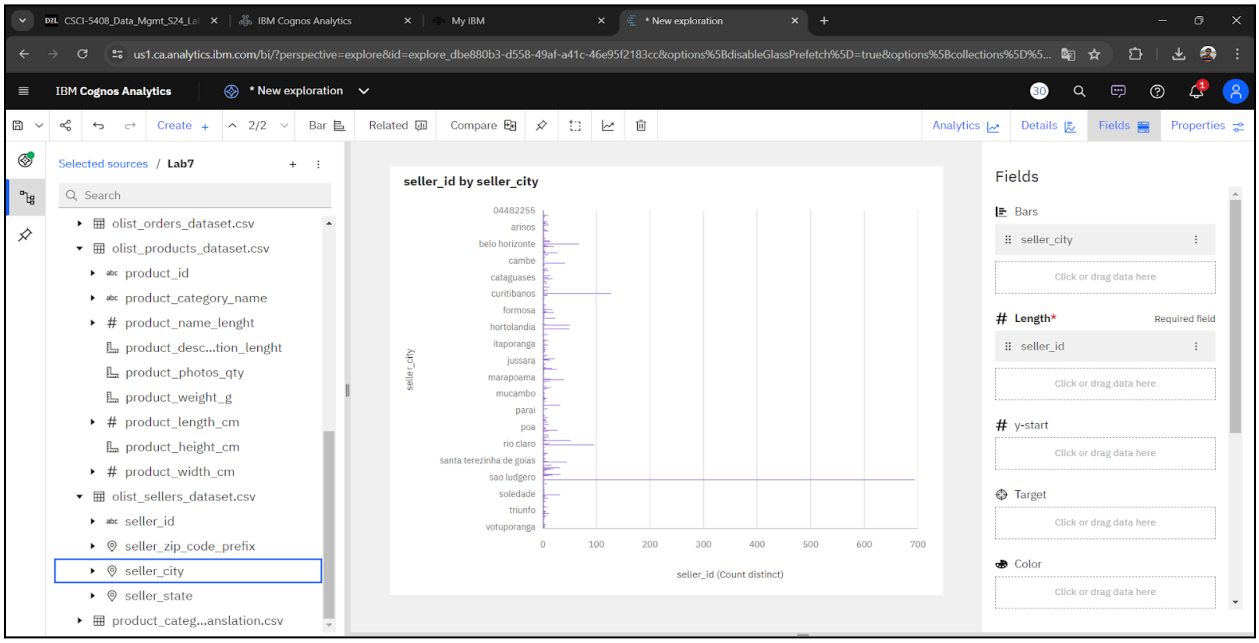

Figure 14: Barc chart of seller_city(Sellers) Vs seller_id(Sellers).

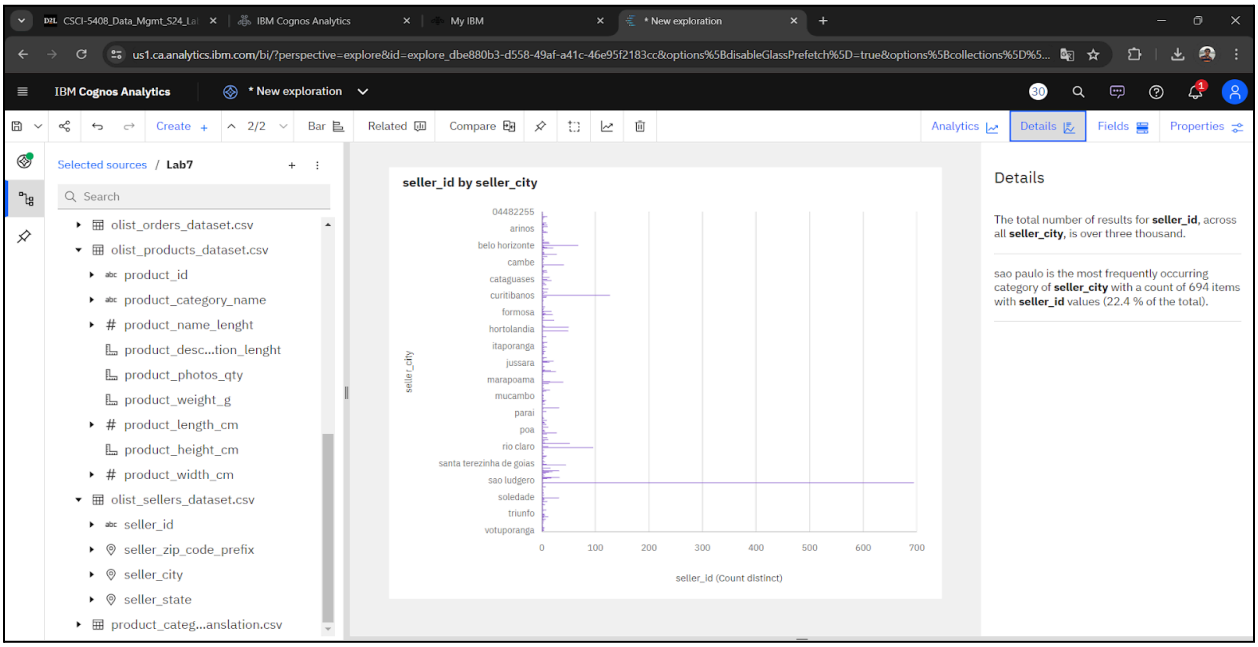

Figure 15: Details of seller_city(Sellers) Vs seller_id(Sellers) bar chart.