

CSCI 5408

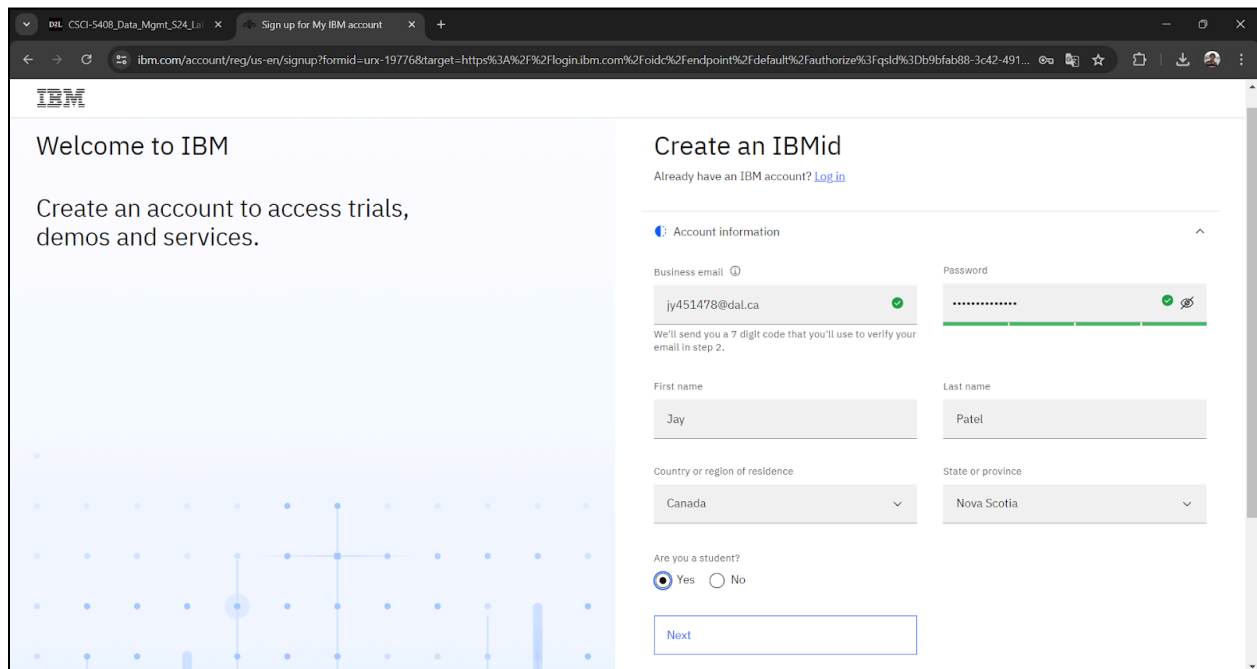
DATA MANAGEMENT AND
WAREHOUSING

LAB-7: BUSINESS INTELLIGENCE AND
IBM COGNOS ANALYTICS

Table of Contents

Account Setup..... 3
Upload Dataset.....5
Relationships..... 6
Bar Chart..... 9

Account Setup



The screenshot shows the IBM account creation page. On the left, a welcome message says "Welcome to IBM" and "Create an account to access trials, demos and services." On the right, the "Create an IBMid" section is active. It includes a link for existing accounts and a form for new users. The form fields are: Business email (jy451478@dal.ca), Password (masked with dots), First name (Jay), Last name (Patel), Country or region of residence (Canada), State or province (Nova Scotia), and a checkbox for "Are you a student?" (selected Yes). A "Next" button is at the bottom of the form.

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

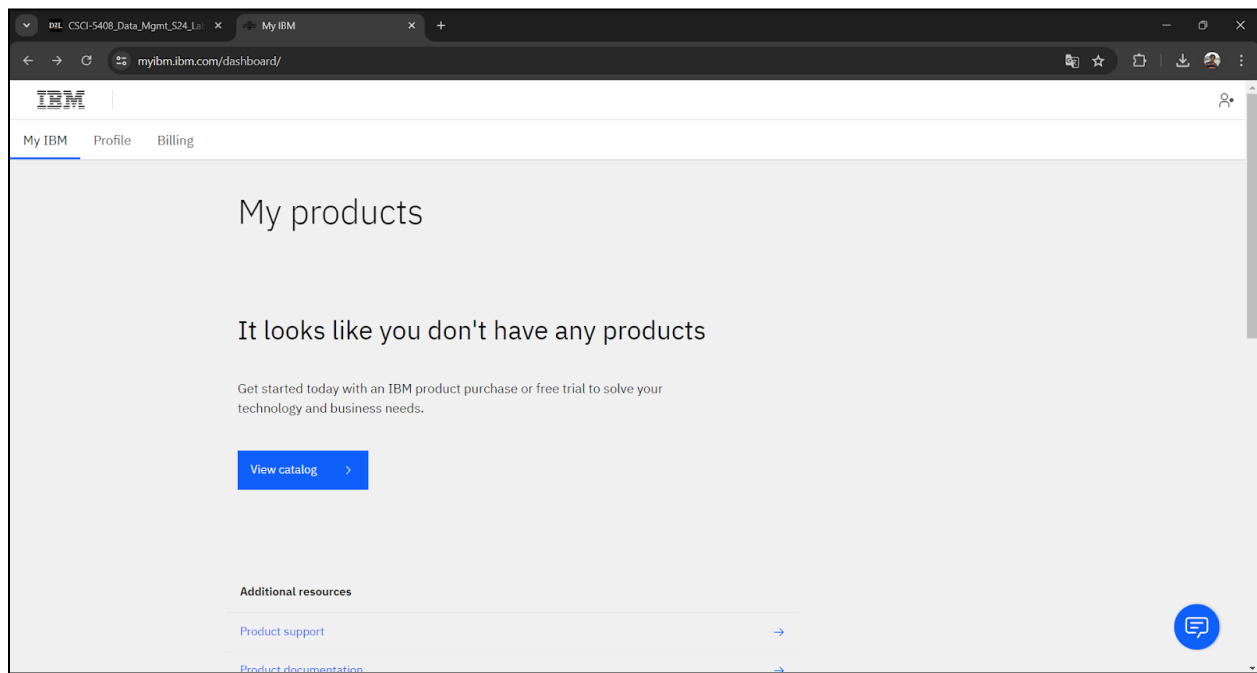


Figure 2: Account is successfully created.

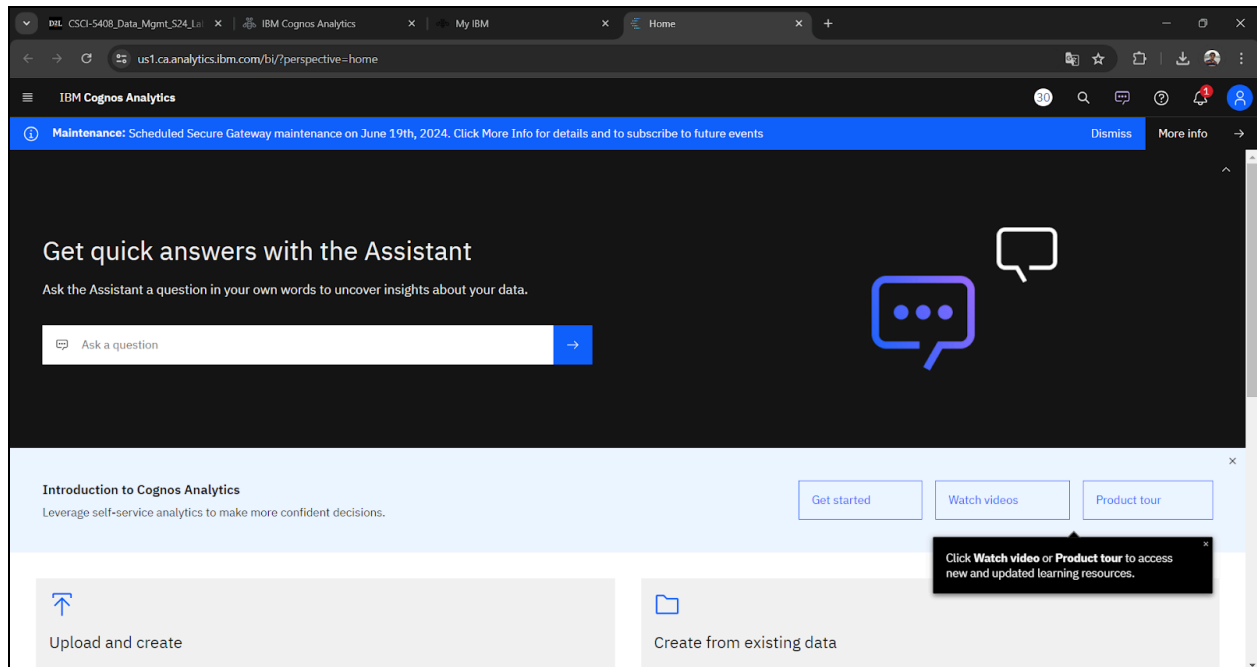


Figure 3: IBM Cognos Analytics Dashboard

Upload Dataset

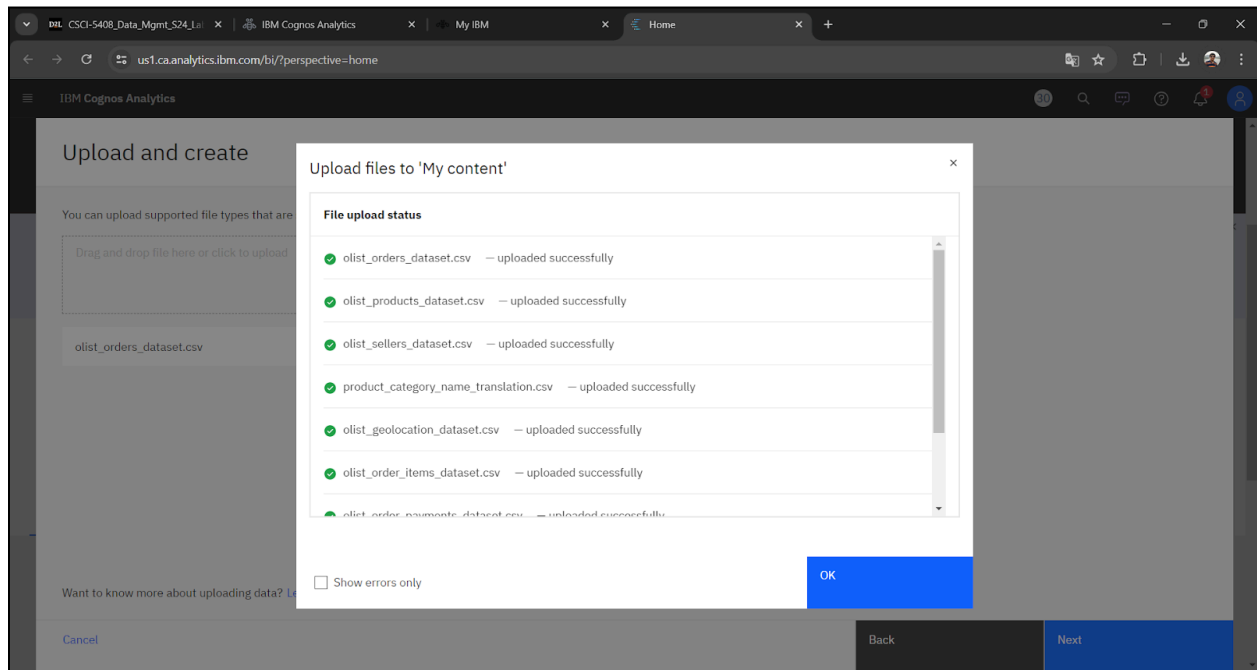


Figure 4: Upload all the CSV files from the Brazilian E-Commerce Public Dataset.

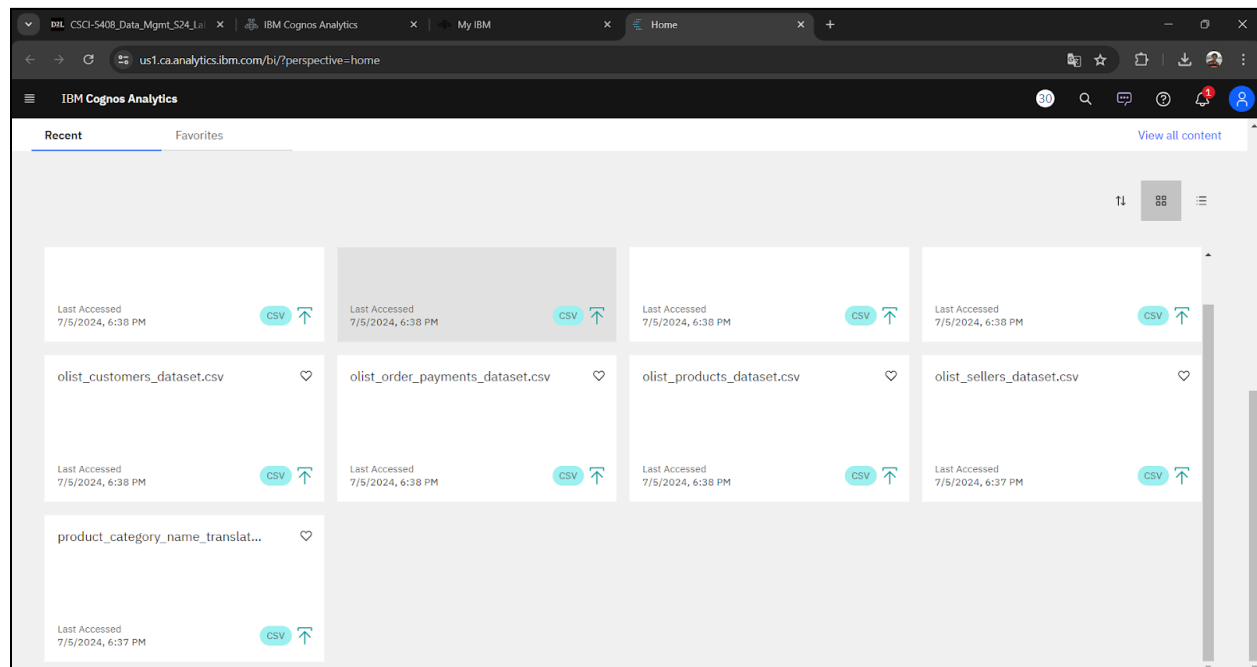


Figure 5: All the CSV are uploaded successfully.

Relationships

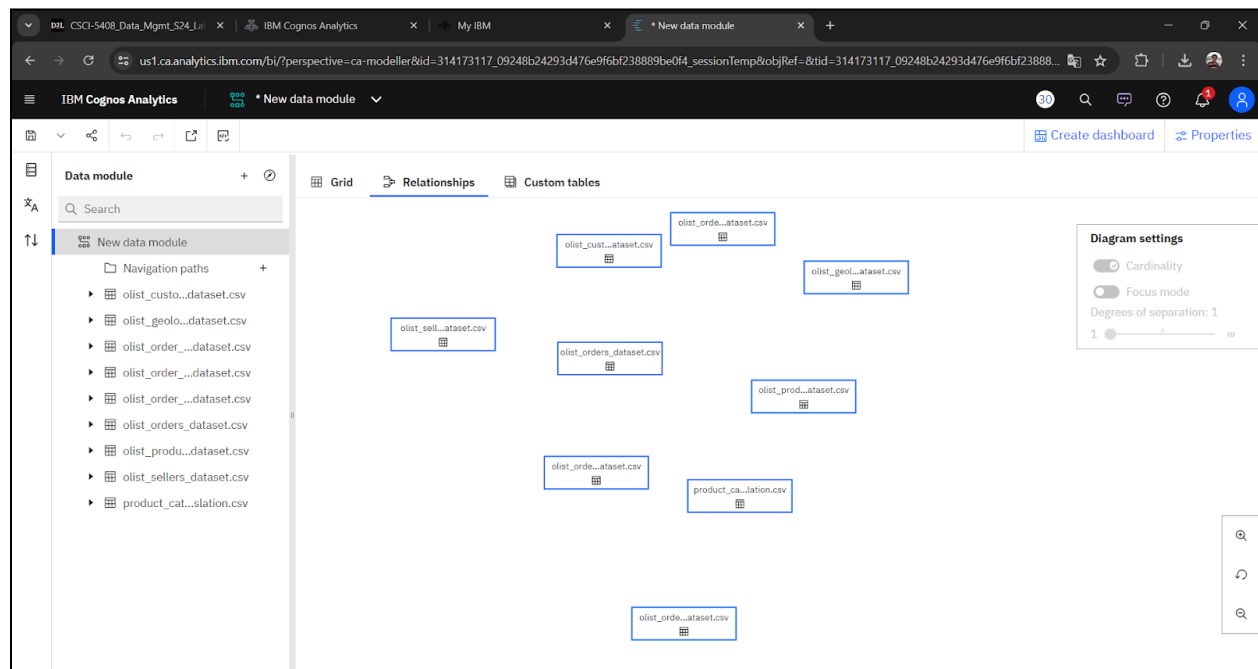


Figure 6: Before any relationship is established.

- 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.

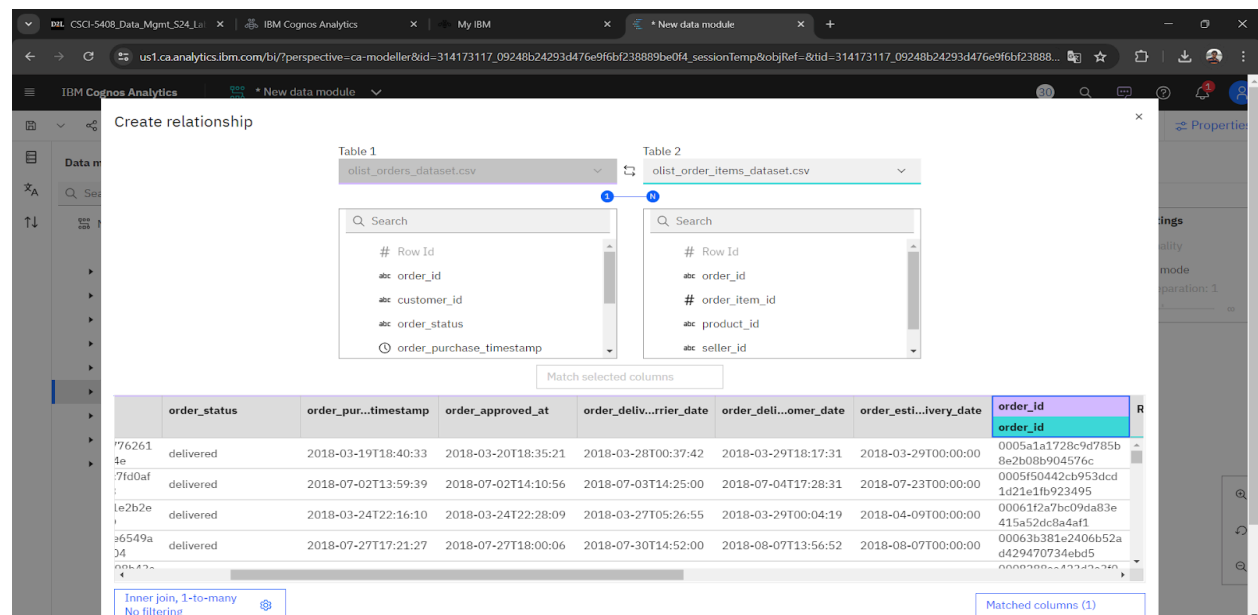


Figure 7: First Relationship between Orders and Order_Items tables.

- 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.

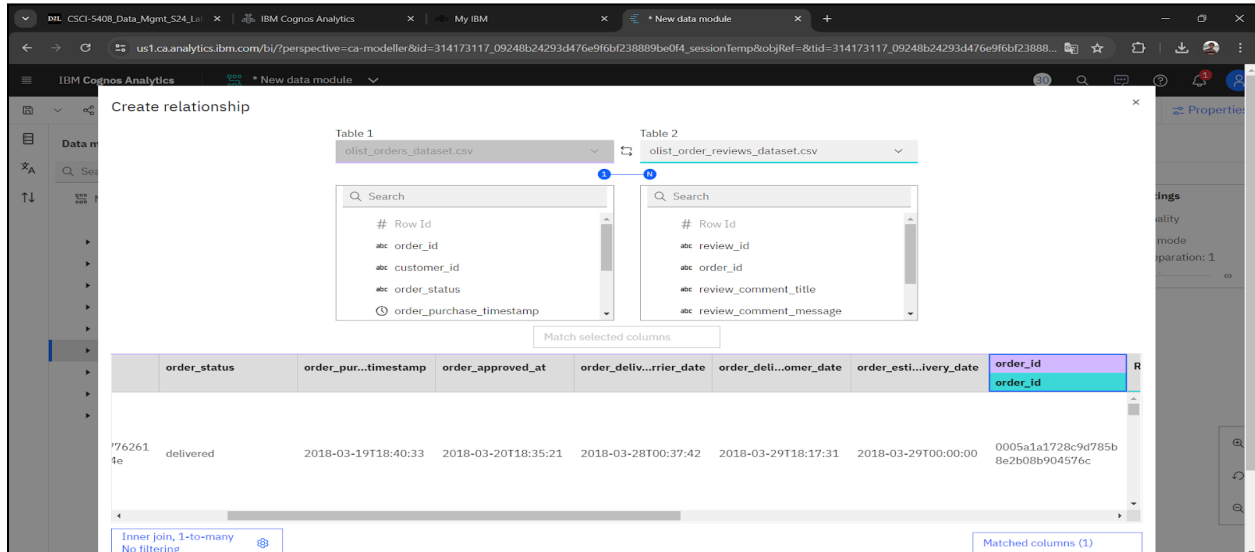


Figure 8: Second Relationship between Orders and Order_Reviews table

- 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.

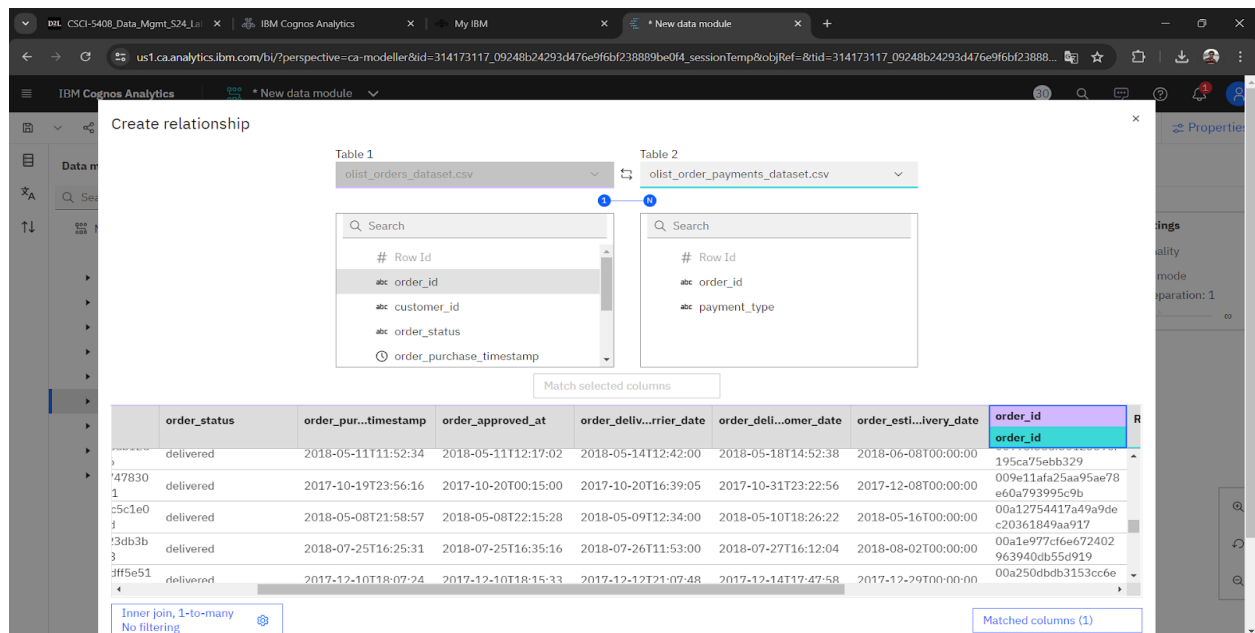


Figure 9: Third Relationship between Orders and Order_Payments tables.

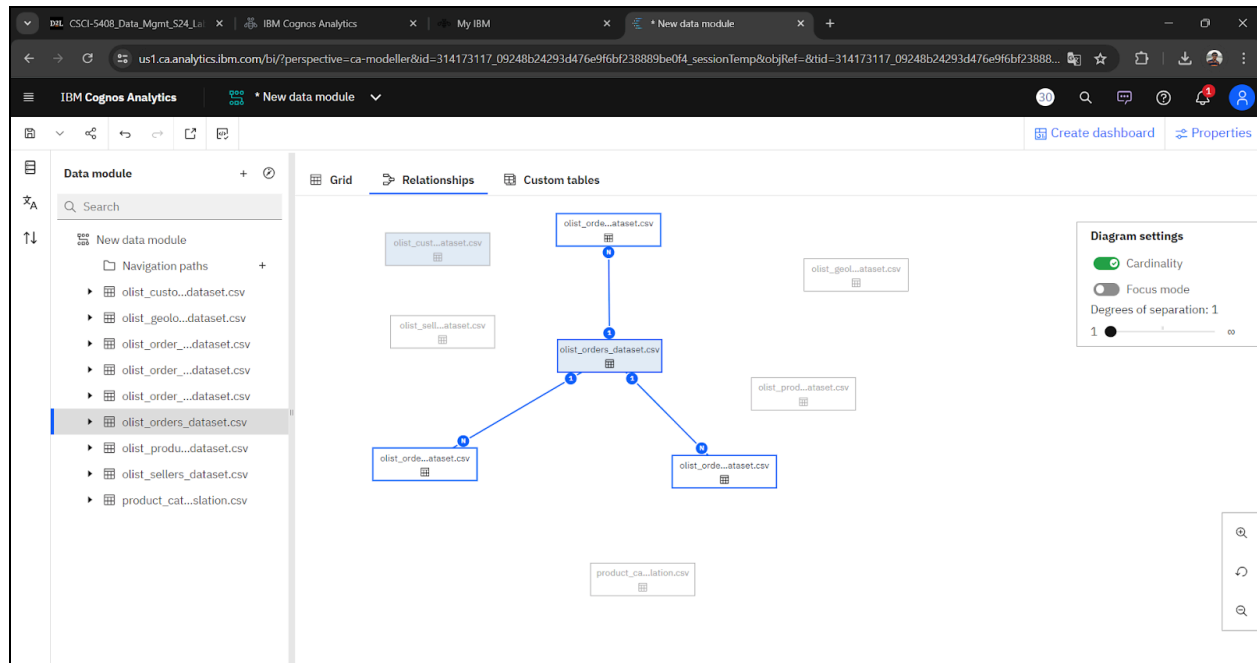


Figure 10: star schema after all three relationships are established.

Bar Chart

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

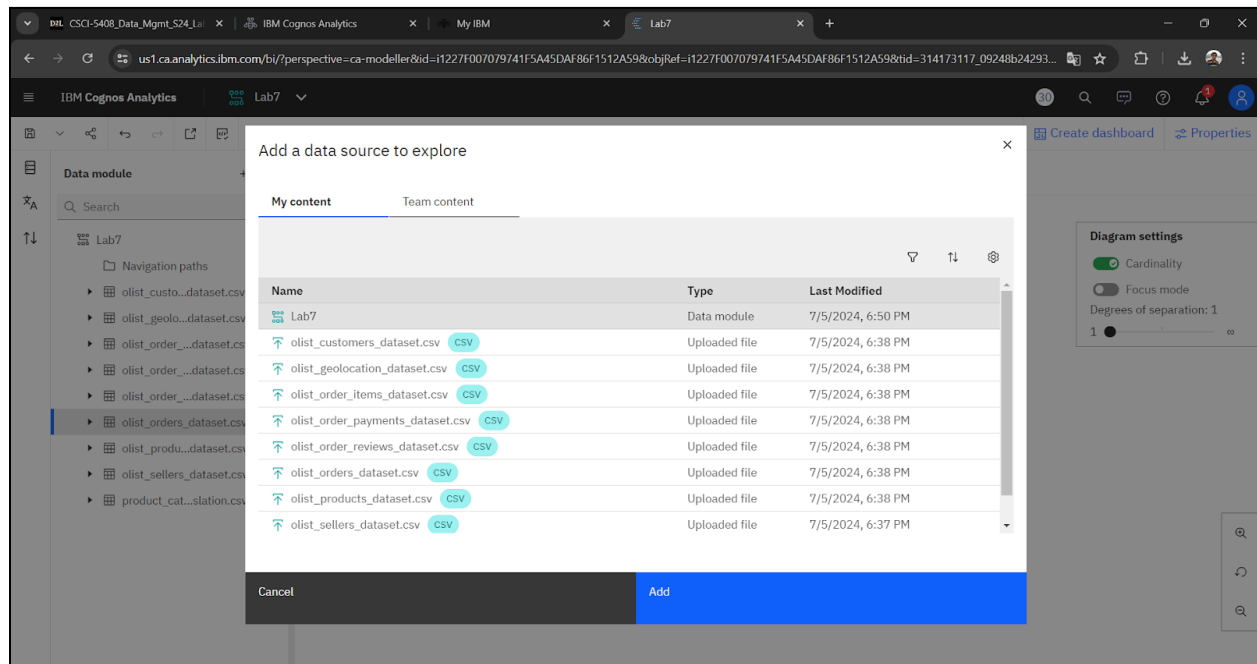


Figure 11: Selection of database for creating a bar graph.

- 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).

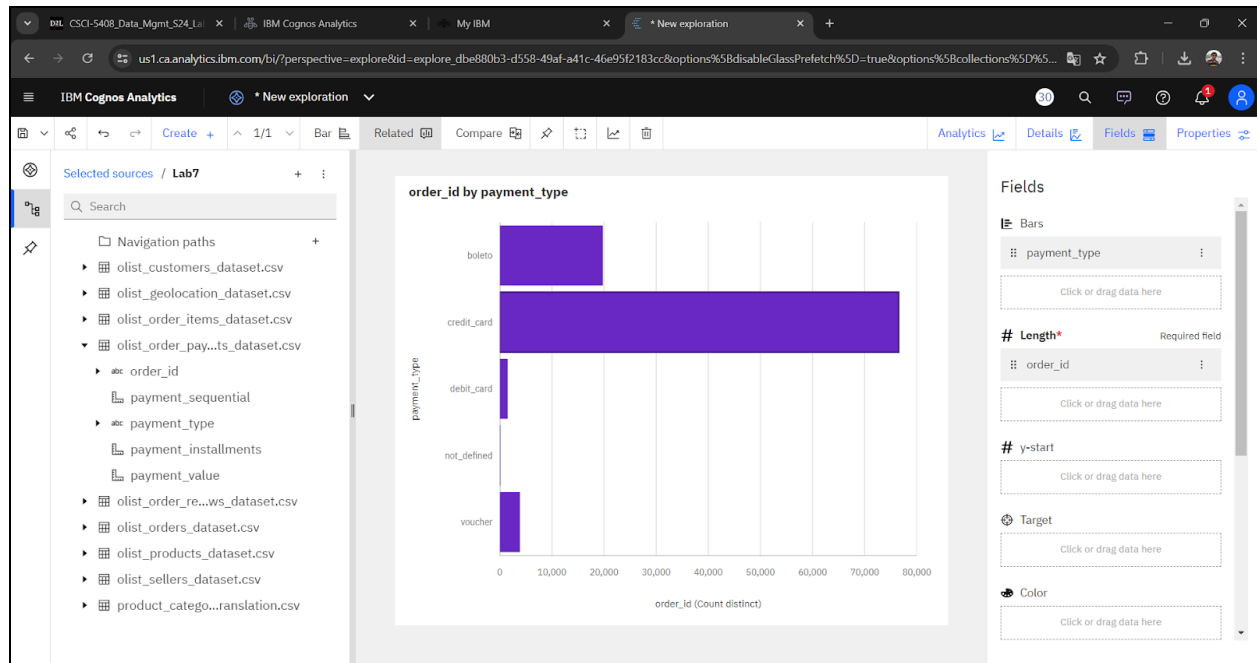


Figure 12: Barc chart of payment_type(Order_Payments) Vs order_id(Orders).

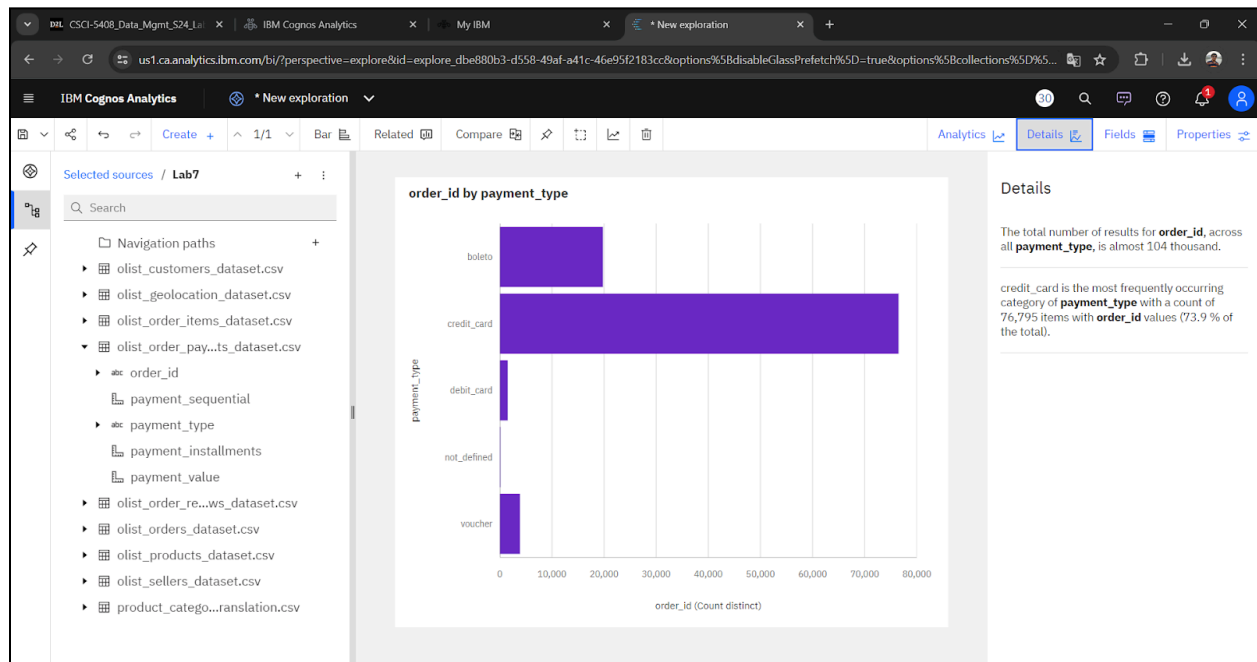


Figure 13: Details of payment_type(Order_Payments) Vs order_id(Orders) bar chart.

- 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).

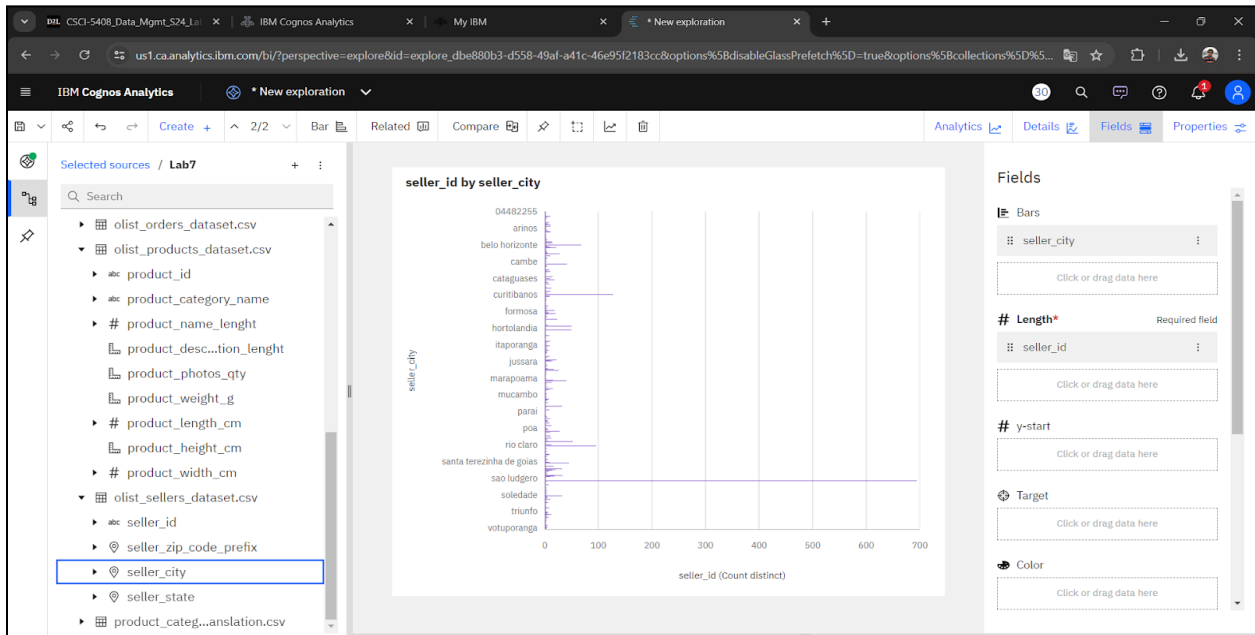


Figure 14: Bar chart of seller_city(Sellers) Vs seller_id(Sellers).

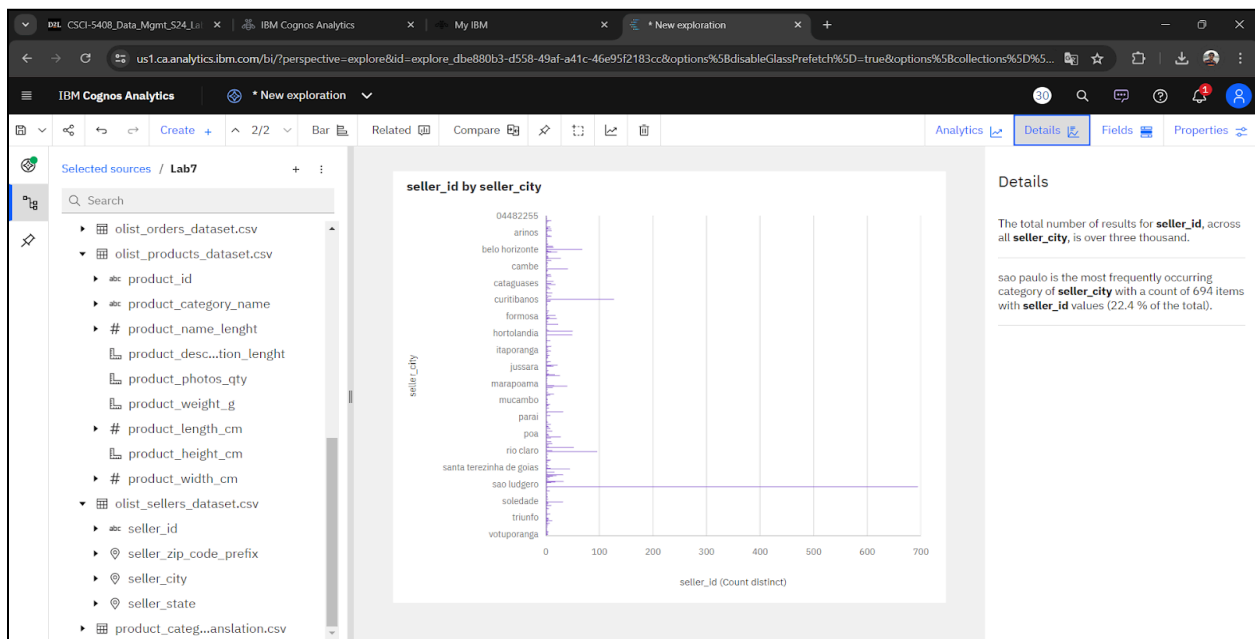


Figure 15: Details of seller_city(Sellers) Vs seller_id(Sellers) bar chart.