# ShopNest Store Capstone Powerbi Project Explanation

- Downloaded the .csv files given in the resources in powerbi and transformed, after that entered into power query editor.
  - **Nexusgoods_order_items_dataset**
  - **Nexusgoods_order_payments_dataset**
  - **Nexusgoods_order_reviews_dataset**
  - **Nexusgoods_orders_dataset (1)**
  - **Nexusgoods_products_dataset**
  - **Nexusgoods_sellers_dataset**
  - **product_category_name_translation**
  - **Nexusgood_geolocation_dataset**
  - **Nexusgoods_customers_dataset**

- Merged Queries from **product_category_name_translation** to **Nexusgoods_products_dataset** based on *product_id* and extracted only *product_category_name_english*.
- Added a new column in **Nexusgoods_order_payments_dataset** called *Total_Payment* by multiplying *payment_installments* and *payment_value* and changed type to Decimal Value.
- In **Nexusgoods_orders_dataset (1)** merged queries from **Nexusgoods_customers_dataset** based on *customer_id* and extracted all columns except *customer_id*.
- In the same **Nexusgoods_orders_dataset (1)** table added a conditional column to check *Delivery status* whether it is delayed or arrived on_time.
  Query : Table.AddColumn(#"Expanded **Nexusgoods_customers_dataset**", "*Delivery Status*", each if [*order_delivered_customer_date*] <= [*order_estimated_delivery_date*] then "**On_Time**" else if [*order_delivered_customer_date*] > [*order_estimated_delivery_date*] then "**Delayed**" else null).
- Some errors are there replaced it with Data_unavailable.
- In **Nexusgoods_order_items_dataset** merged queries from **Nexusgoods_sellers_dataset** based on *seller_id* and extracted all columns except *seller_id*.
- Removed *seller_id* column from **Nexusgoods_order_items_dataset.**
- Merged Queries from **Nexusgoods_products_dataset** to **Nexusgoods_order_items_dataset** and extracted only *product_category_name_english* based on *product_id*.
- Merged Queries from **Nexusgoods_order_payments_dataset** to **Nexusgoods_order_items_dataset** and extracted *payment_type, Total_payment* based on *order_id*.
- Merged Queries from **Nexusgoods_orders_dataset (1)** to **Nexusgoods_order_items_dataset** and extracted *customer_city, customer_state* and *Delivery status* based on *order_id*.

- Merged Queries from **Nexusgoods_order_reviews_dataset** to **Nexusgoods_order_items_dataset** and extracted *review_score* based on *order_id* column.
- Disabled Load for **Nexusgoods_sellers_dataset, product_category_name_translation** and **Nexusgoods_customers_dataset,**

Dashboard Creation:

Data modelling looks like this:
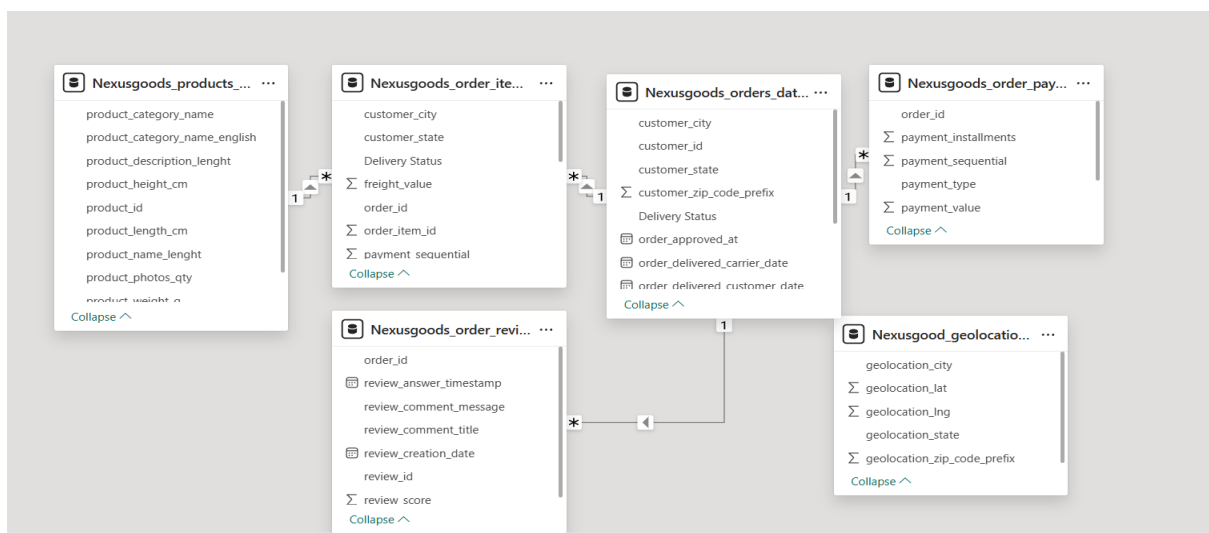
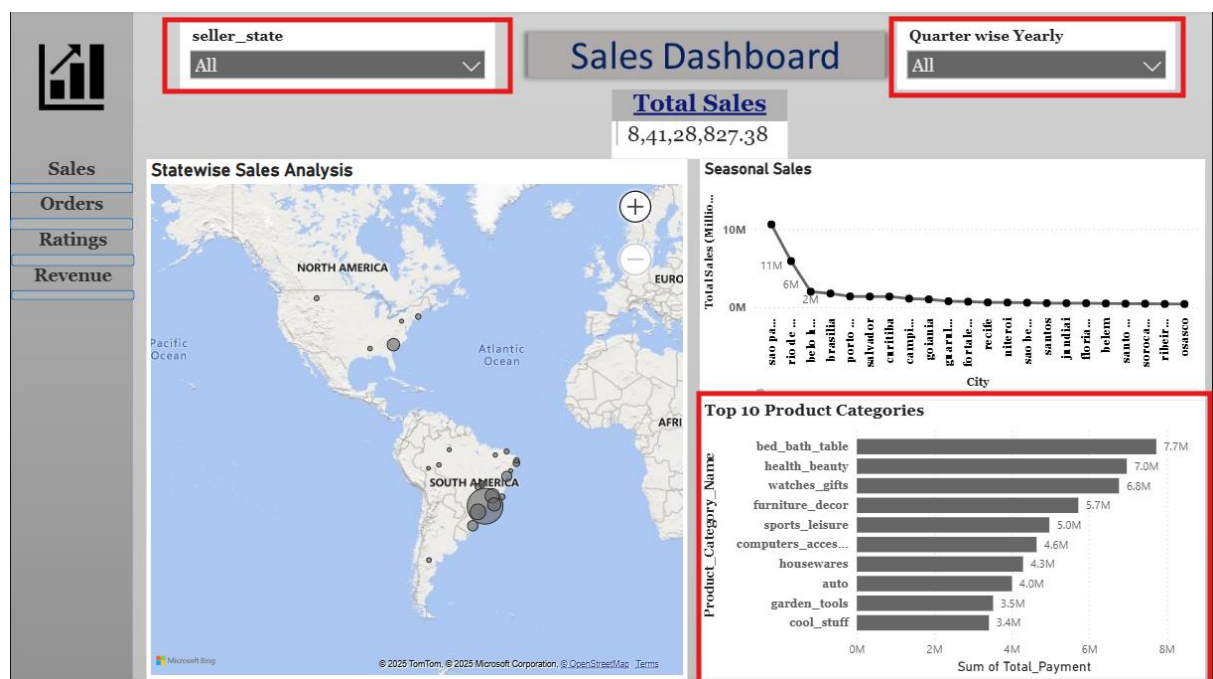Prepared ShopNest Dashboard outline in Powerpoint Presentation like this:
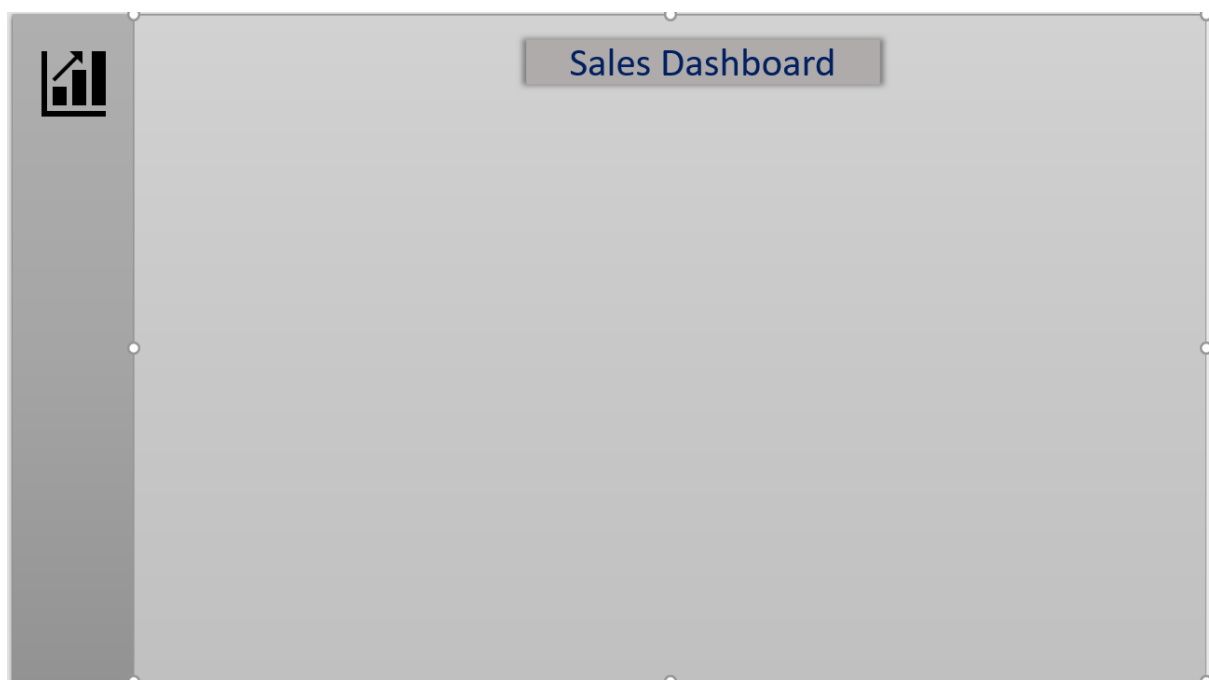
And inserted it in powerbi.

Added Total_Sales by sum of Total_Payment.

Total Sales
8,41,28,827.38

1. **Top categories by Total Price**:
   Identify and visually represent the top 10 product categories by Sales.

   Ans: We can filter the top 10 product categories based on *Seller_state* and Quarter wise yearly sales by using dropdowns in Sales button.

2. **Delayed Orders Analysis:**
   Determine the number of delayed orders in each category. An order is considered delayed if the actual delivery date is later than the estimated delivery date.
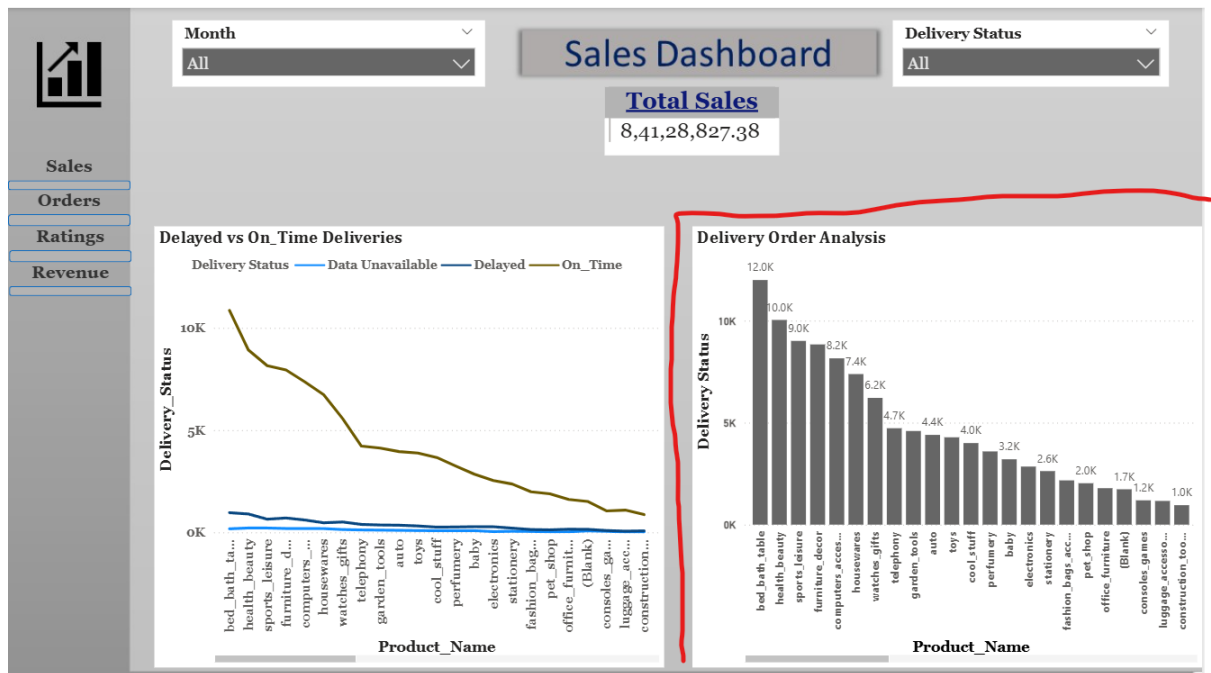
Ans: Here based on the delivery status filter We can find the delayed orders in each category in orders button.

It will be shown as below.
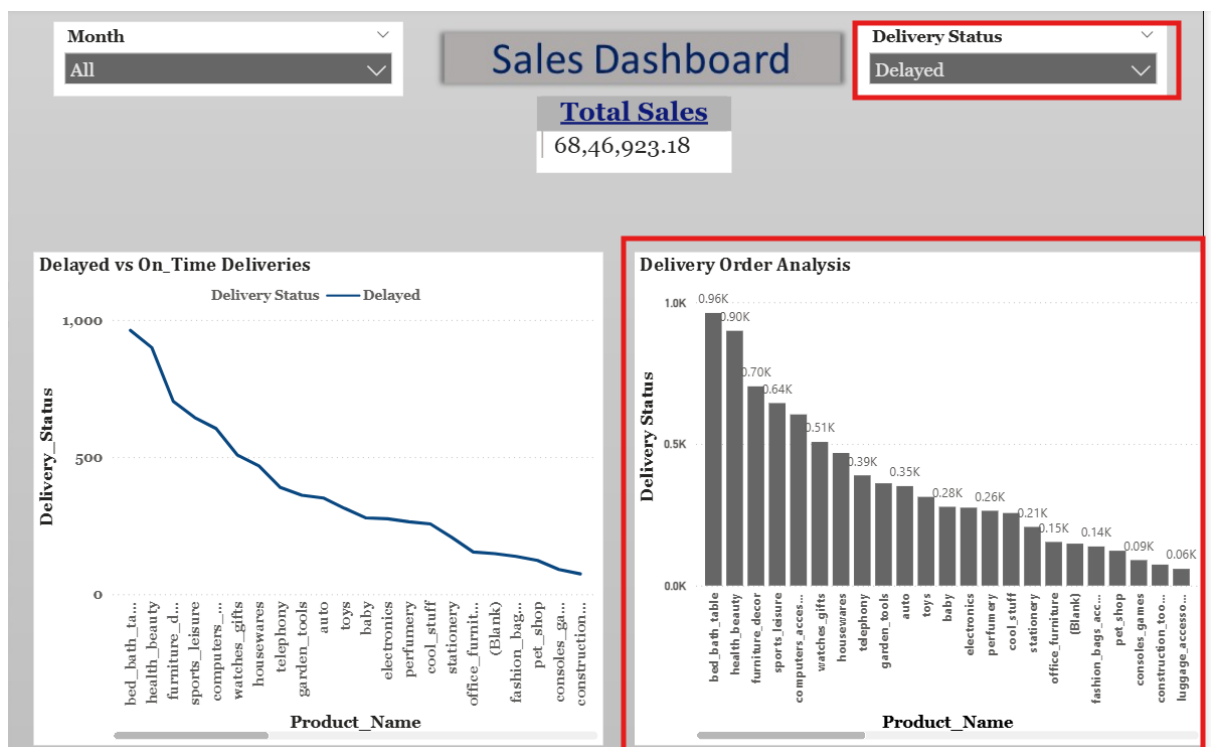
3. Monthly Comparison of Delayed and On-Time Orders:

Create a dynamic visual that compares the number of delayed orders to the number of orders received earlier for each month. Utilize the drill through cross report feature to provide a detailed analysis of late and on-time deliveries.

Ans: Based on month we can analyze Delayed and on-time deliveries according to product_categories in Orders button.
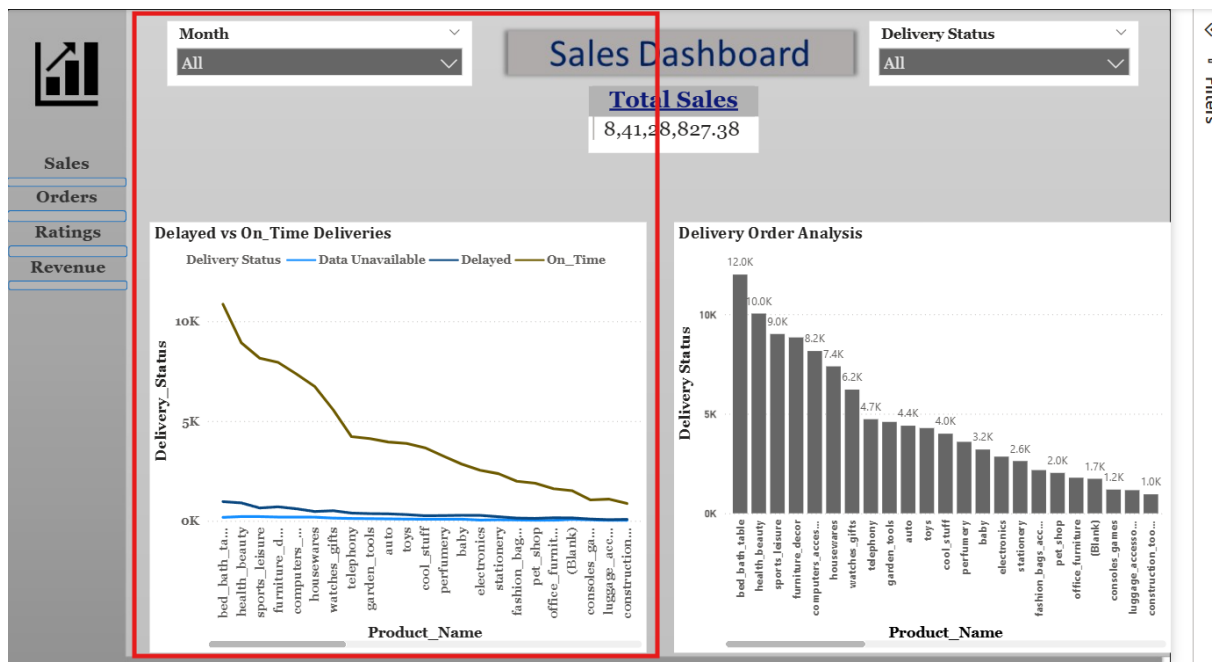
For example if we select the dropdown from month(may) we can select any month and Delayed and On-Time deliveries will change based on month.
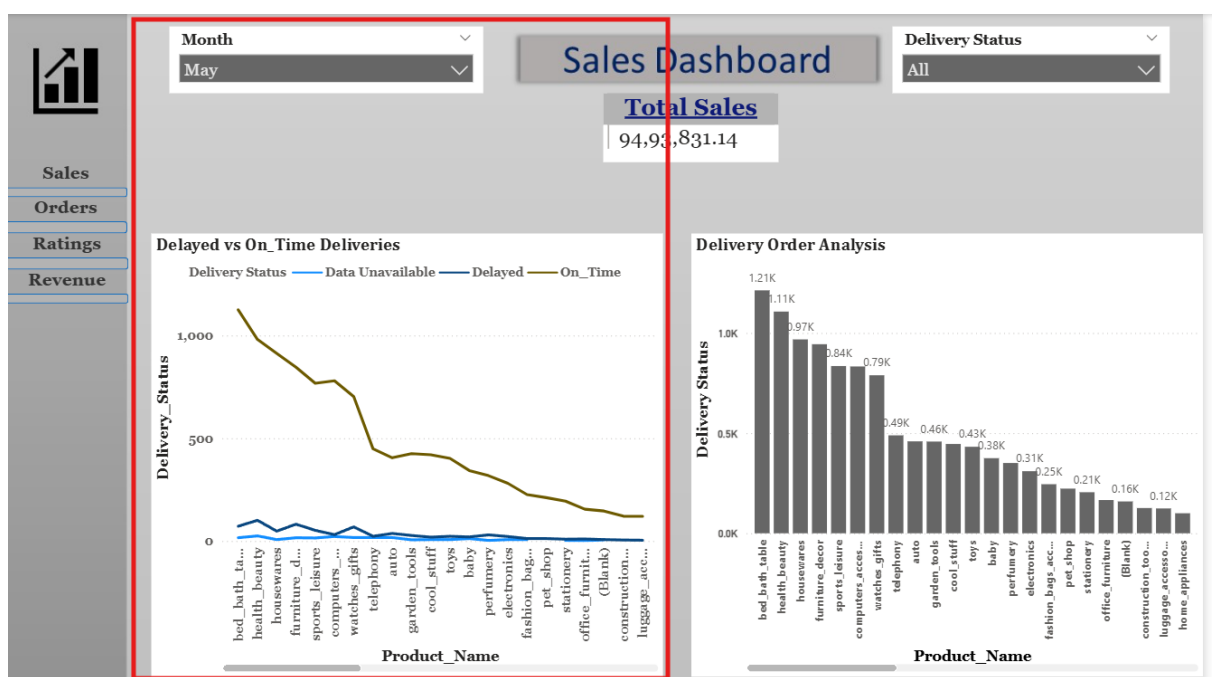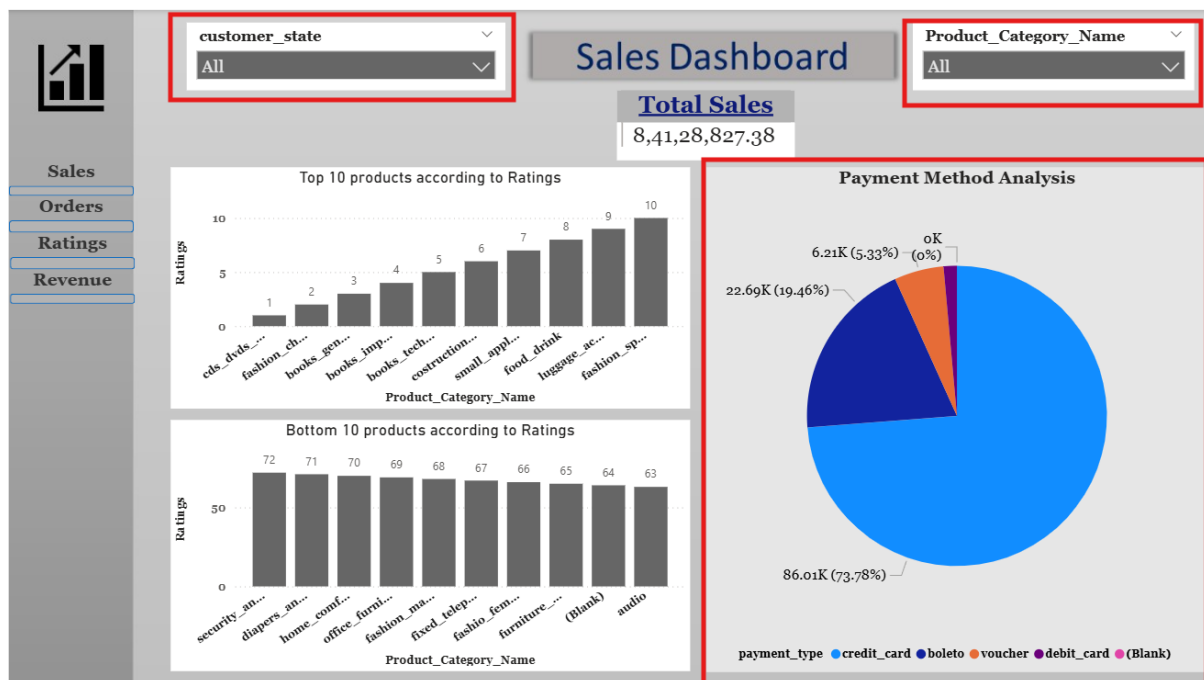
4. Payment Method Analysis:

Analyze the most frequently used payment methods by customers using a visually appealing representation, such as pie chart, or other suitable visuals.

Ans: Payment method type used by customers can be represented as below.
We can filter the payment method used type based on the product_category and customer_state in Ratings button.
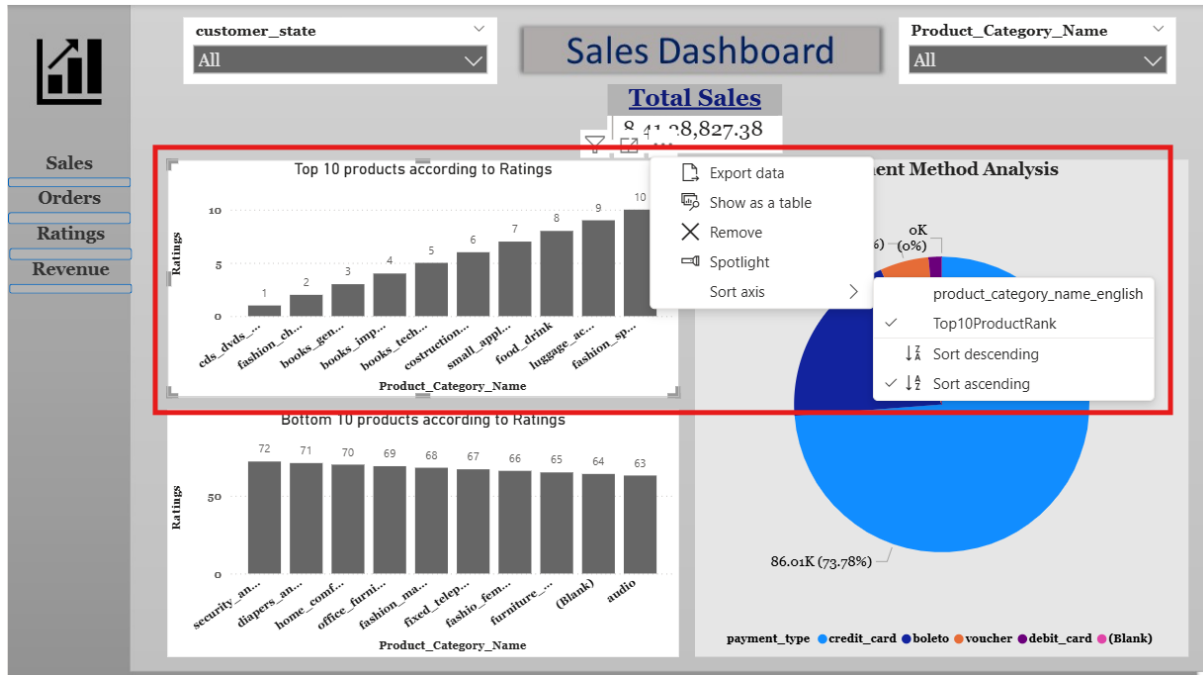

5. Product Rating Analysis:

Determine the Top 10 highest rated products and the bottom 10 lowest rated products using a bar or column chart.

Ans: Added a new measure and used Rankx function on the ratings based on product category in the powerbi as below:

```
Top10ProductRank =
RANKX(ALL(Nexusgoods_order_items_dataset[product_category_name_english]),CAL
CULATE([Average_Rating]),,desc,Skip)
```

And used Top10ProductRank in the dashboard like this and sorted in ascending order in Ratings button.

And for the bottom 10 lowest rated products used the same the Top10ProductRank measure and sorted the axis in descending order in Ratings button.
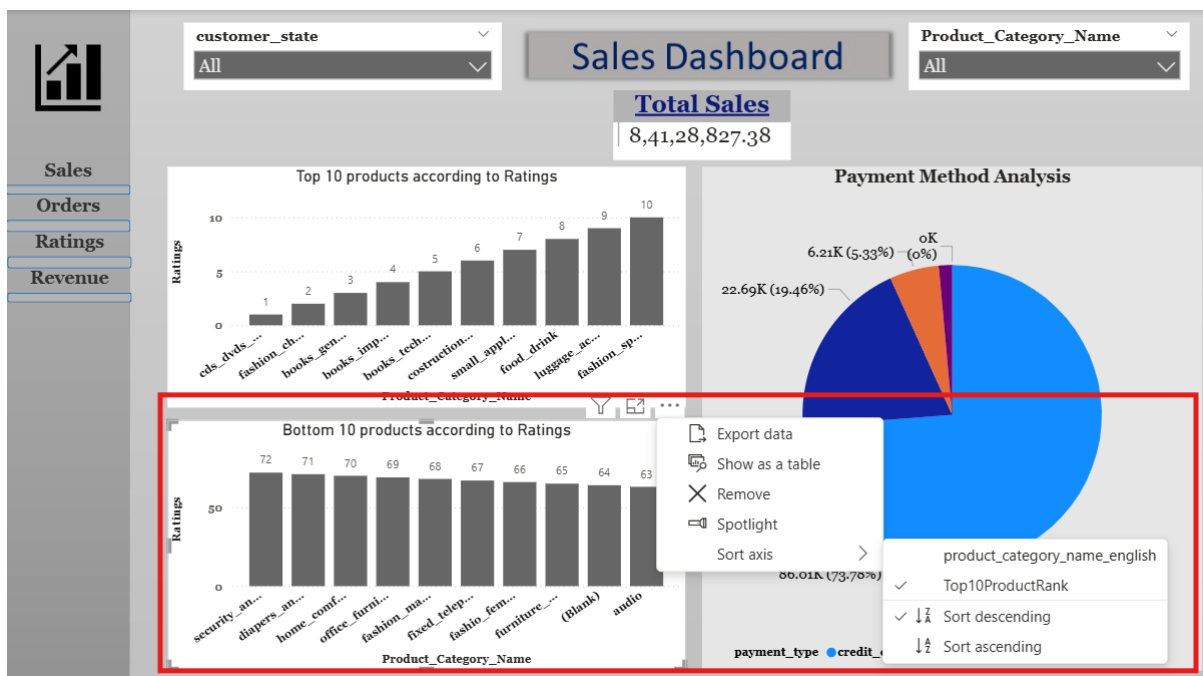

6. Statewise Sales Analysis:

Identify and visually represent States with high and low Sales, providing a clear understanding of regional sales performance.

Ans: In the Sales button there is a map which denotes the state wise analysis and the size of the bubbles indicate number of sales based on customer_state and there is a zoom slider + sign on the map. We can check the sales clearly by clicking on the + sign.
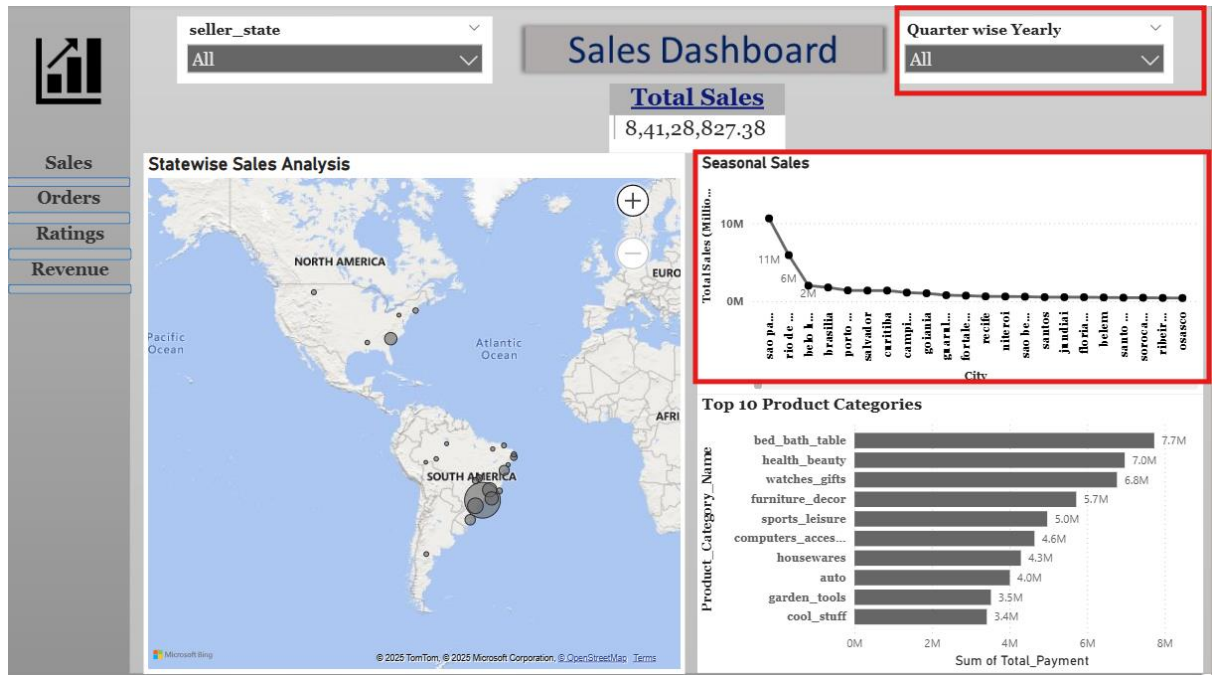
Big size of the bubble indicates more number of sales as shown below.
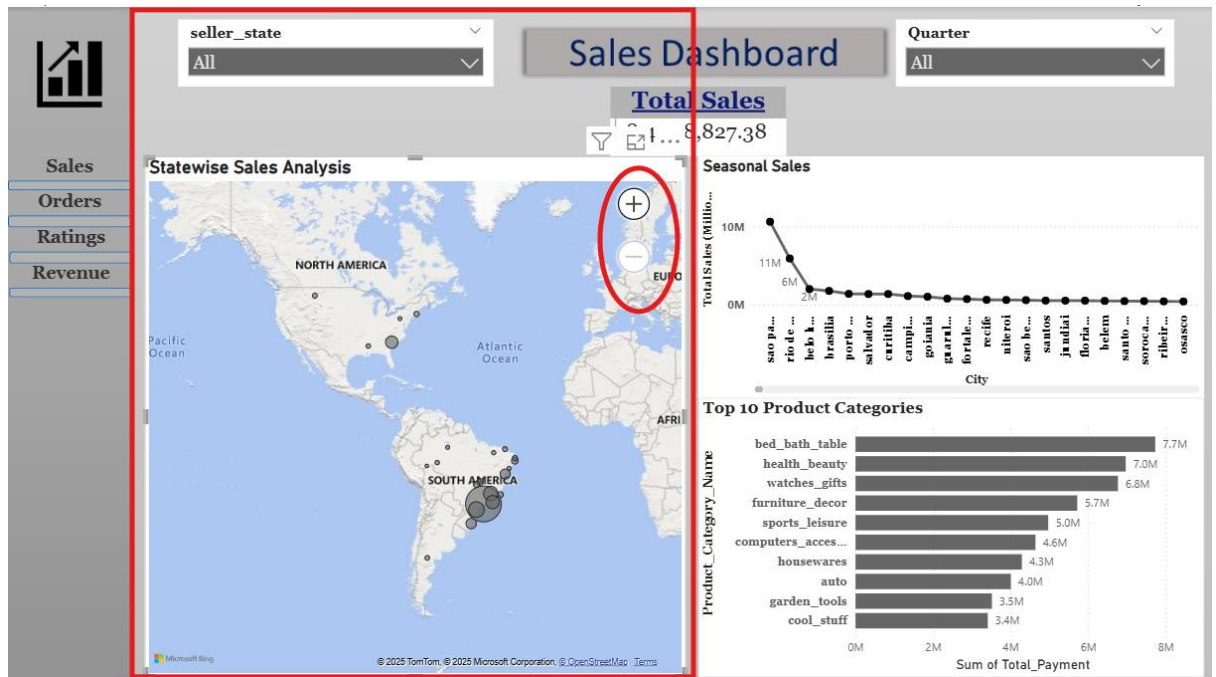
7. Seasonal Sales Patterns:

Investigate and Visualize any Seasonal Patterns (Quarterly) or trends in sales data over the course of the year.

Ans: We have Quarter wise yearly dropdown in the sales button from that we can check every year quarter wise Seasonal Sales.

For example, if we take 2017 Quarter 2 Sales it will look like this.
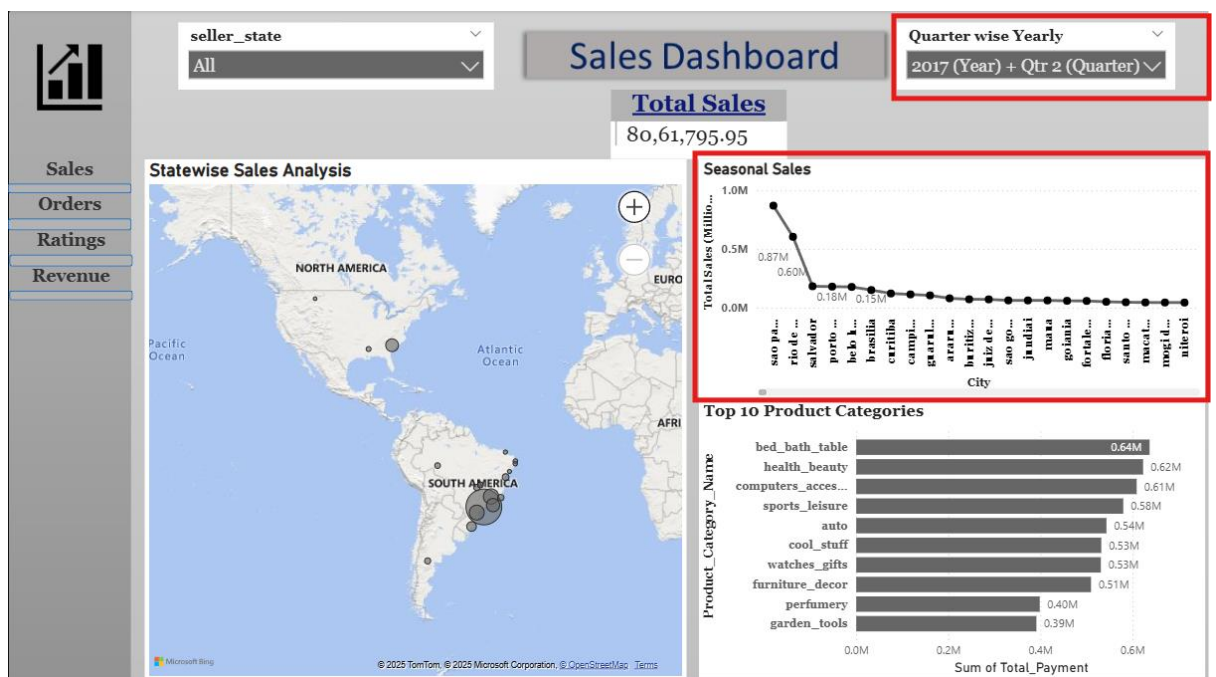

8. Revenue Analysis:

Determine the total revenue generated by ShopNest Store and analyze how it changes over time (yearly). Represent this information through suitable visuals to highlight trends and patterns.

Ans: In the Revenue button there is year wise comparison of sales based on states.

We can use the Year wise sales dropdown and based on that we can select particular year, Quarter, month or date for all or a particular product based on product category name from the dropdown.
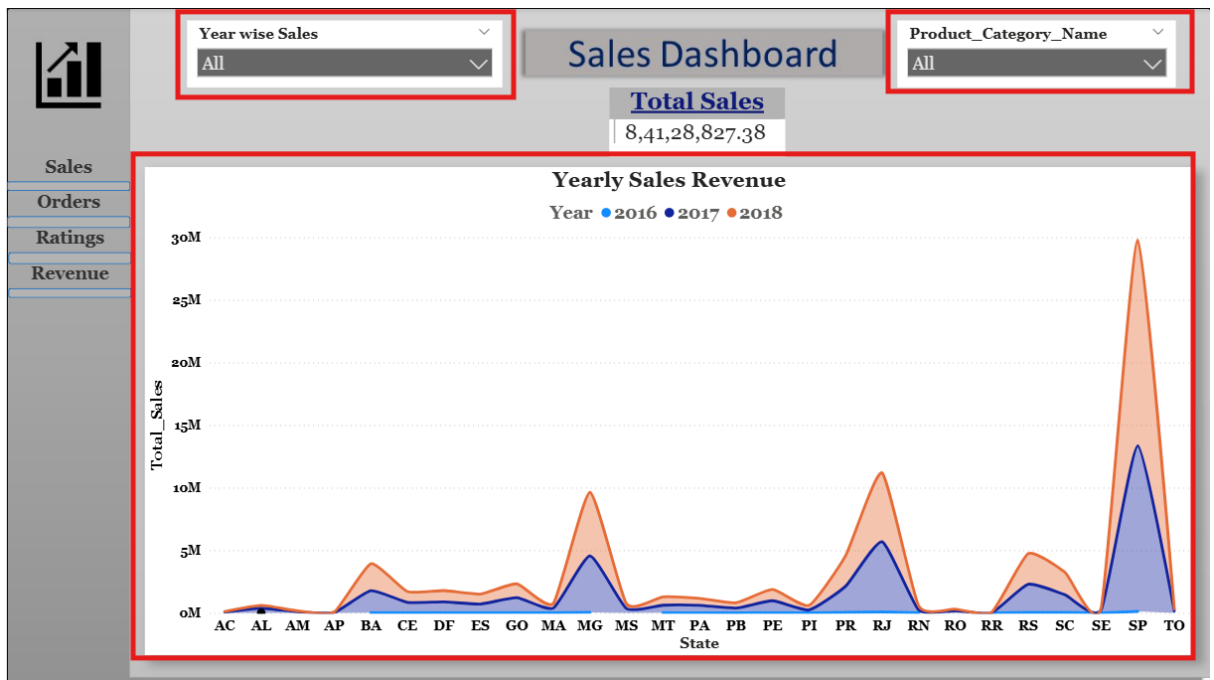
For Example, if we want to check the yearly sales for the bed_bath_table category from product category it will be shown as below.
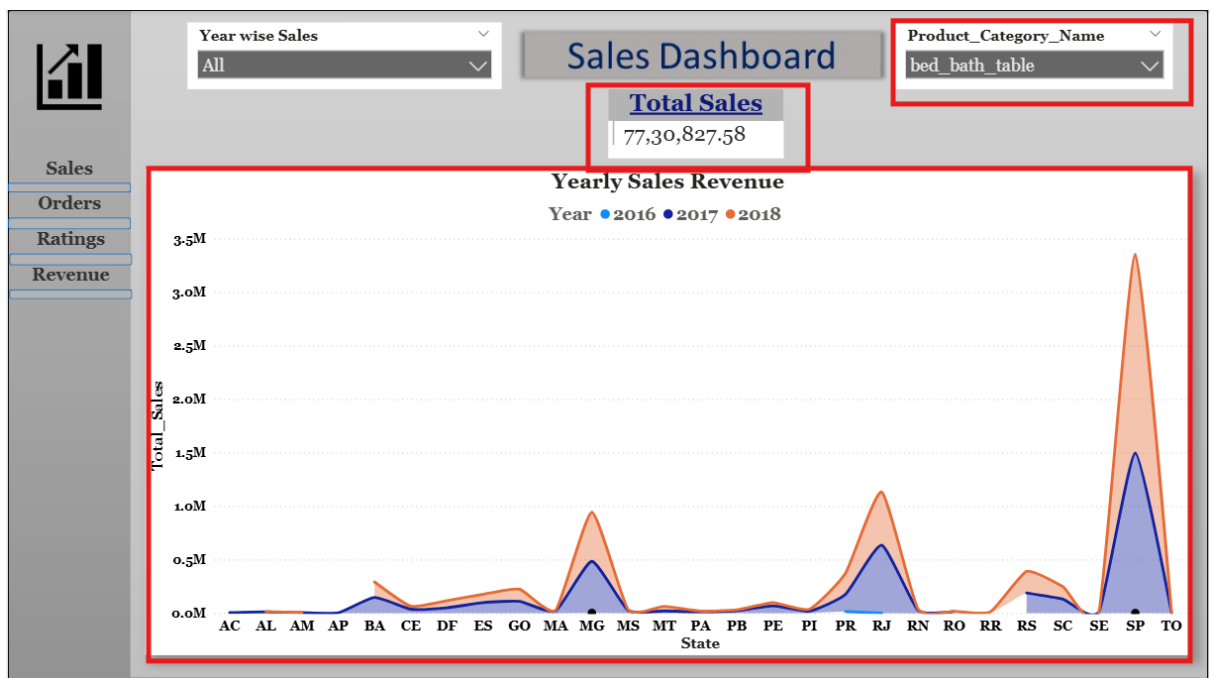
The above screenshot indicates Total sales generated by bed_bath_table across all the years and year wise comparison across different states.