



VIX Rakamin Academy ✕



Project-Based Intern: Big Data Analytics Virtual Internship PT. Kimia Farma Tbk



Big Data Analytics: Salicyl Sales Dashboard

Created By : Vicky Jodie



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1. Background

Determine the background data and analysis performed.

2. Table Used

There are 3 tables that we will use according to the task of this project.

3. Data Process, Visualization, Insight

All steps of data process until turn out visualize and the elaborate of insights.

4. Suggestion

Advice and recommendations for company.

Tools:





01. Background

Kimia Farma is the first pharmaceutical industry company in Indonesia which was founded by the Dutch East Indies Government in 1817.

In this project, I was assigned as Big Data Analytics at PT. Kimia Farma, Tbk to do some task such as making report and dashboard related to sales data of Brand Salycil. After brief overview the data, it seem that the data starting from January to June 2022.





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1.BACKGROUND

02. Table Used



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02. Table Used

There are 3 table used such as :Table Penjualan (Sales), Table Pelanggan (Customer), Table Baang (Product). All of them have already available from Kimia Farma's data and I using MySQL to convert it.

	Table	Action	Rows	Type	Collation	Size
<input type="checkbox"/>	barang	★ Browse Structure Search Insert Empty Drop	10	InnoDB	utf8mb4_general_ci	16.0 KiB
<input type="checkbox"/>	pelanggan	★ Browse Structure Search Insert Empty Drop	350	InnoDB	utf8mb4_general_ci	64.0 KiB
<input type="checkbox"/>	penjualan	★ Browse Structure Search Insert Empty Drop	351	InnoDB	utf8mb4_general_ci	64.0 KiB

Link to see Dataset:

https://docs.google.com/spreadsheets/d/1KDwVAvHttgzrgMbUtD5fxYF4266JStkZ/edit?usp=share_link&ouid=104630564271867774996&rtpof=true&sd=true



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02. Table Used

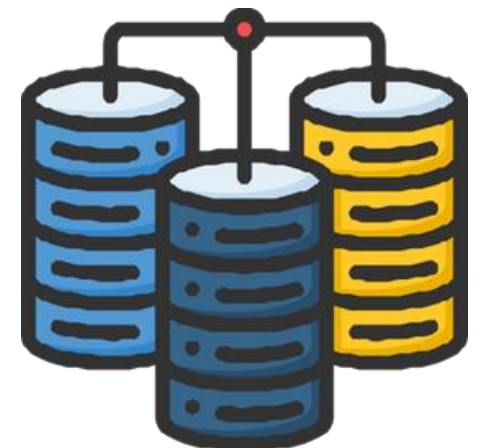
03. Data Process,
Visualization, Insights ✕ +

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03. Data Process, Visualization, and Insights

List to do :

- In this project, I using SQL Querying by MySQL for data warehousing and do analysis until consists 3 tables such as : table sales, table customer, table product.
- Then, I did visualization analysis by creating Sales Dashboard using Google Data Studio.
- At the last, I elaborate my analysis and give some suggestions.





SQL Query for preparing the data before visualization

```
1 SELECT
2     tanggal as Date,
3     id_invoice as InvoiceID,
4     a.id_customer as CustomerID,
5     b.nama as CustomerName,
6     id_barang as ProductID,
7     c.nama_barang as ProductName,
8     id_cabang as BranchID,
9     b.cabang_sales as BranchArea,
10    brand_id as BrandID,
11    c.lini as BrandName,
12    jumlah_barang as ProductQuantity,
13    harga as Price,
14    kemasan as Packaging
15 FROM penjualan as a
16 INNER JOIN pelanggan as b on a.id_customer = b.id_customer
17 INNER JOIN barang as c on a.id_barang = c.kode_barang;
18
```

If you want to reach my visualization. Please check this link :

<https://datastudio.google.com/u/0/reporting/e0e8d21a-2294-4be4-8e98-12333470988d/page/Qpl8C>



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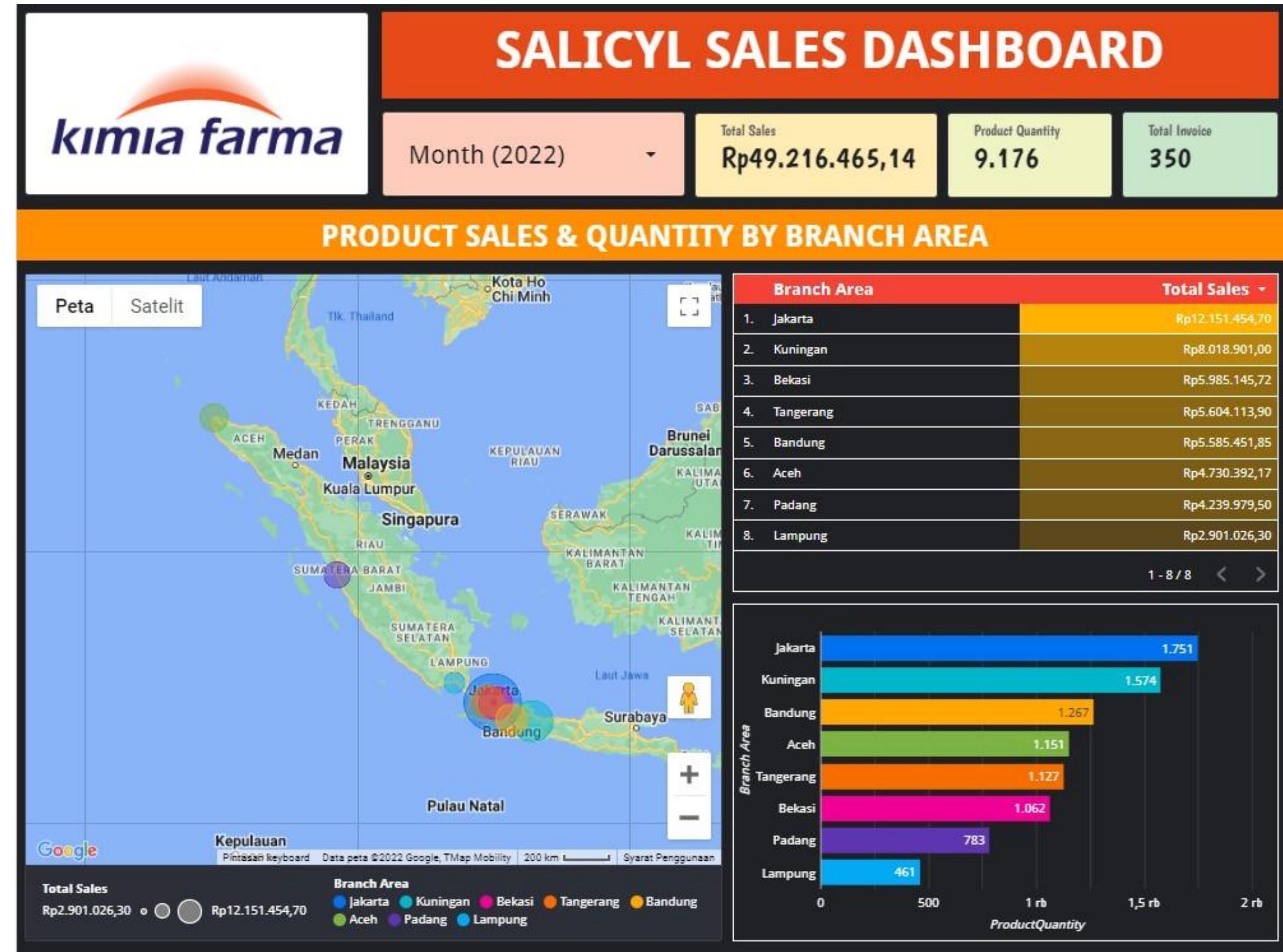
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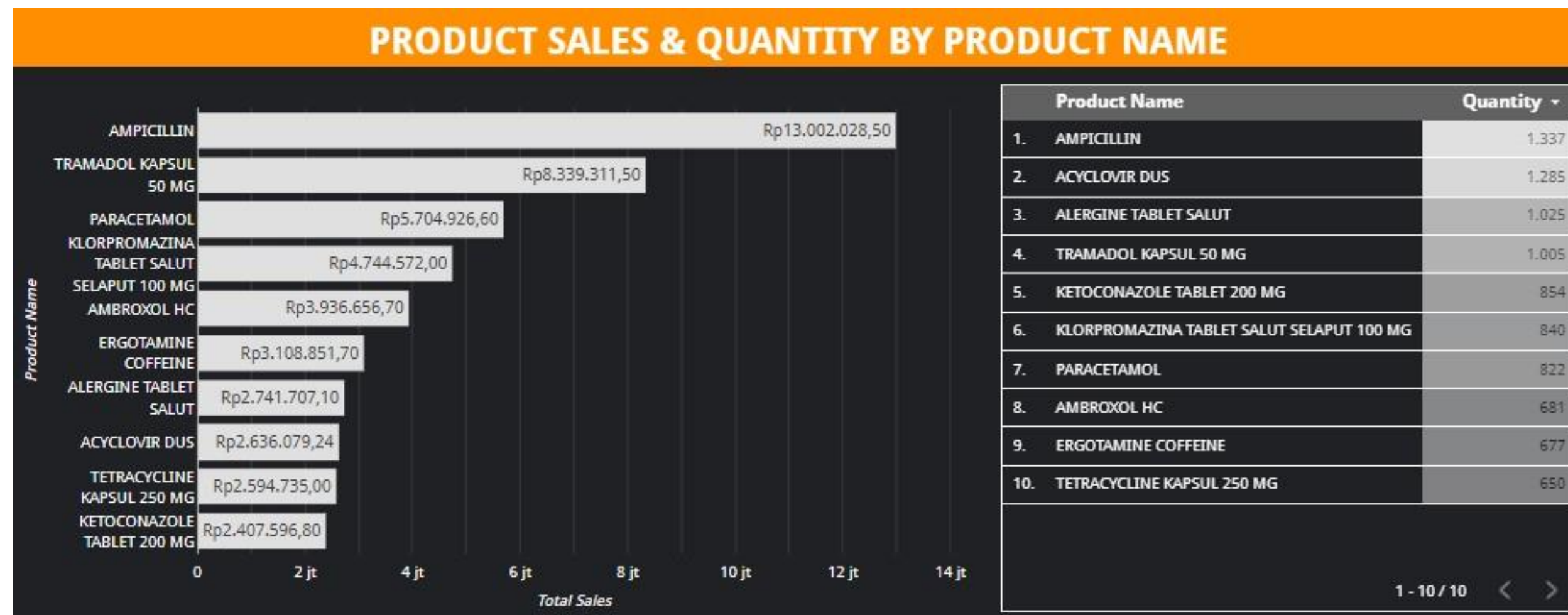
Overview Visualization

This is visualization for all total sales, total product quantity, total invoice, month (using filter) and also overview about product sales & quantity by branch area.

Insight :

As the result of beside visualization, the most sales are in Jakarta branch area with amount Rp 12.151.454,70 and also has the highest number of product quantity too with amount 1.751

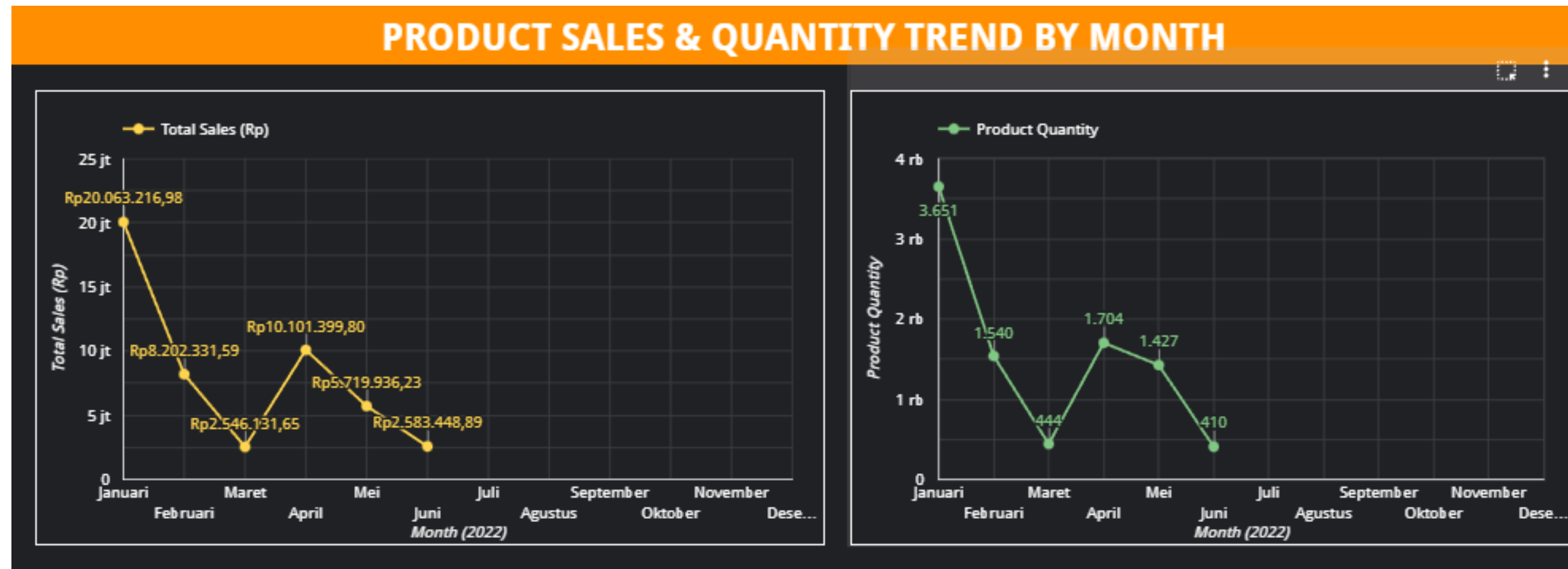




Insight :

Based on the visualization shows that the sales of the top three products (highest sales) are **Ampicillin (Rp 13.002.028,50)**, **Tramadol Kapsul 50 mg (Rp 8.339.311,50)**, and **Paracetamol (Rp 5.704.926,60)**. Meanwhile, when viewed from product quantity, there is a slight difference where the three products with the most supply are **Ampicillin (1,377)**, **Acyclovir Box(1,285)**, and **Allergen Tablet Coated (1,025)**.

It indicates an **imbalance between sales and the availability of drug stocks**. Because there are some drugs whose sales are high, but the stock is low, and vice versa.



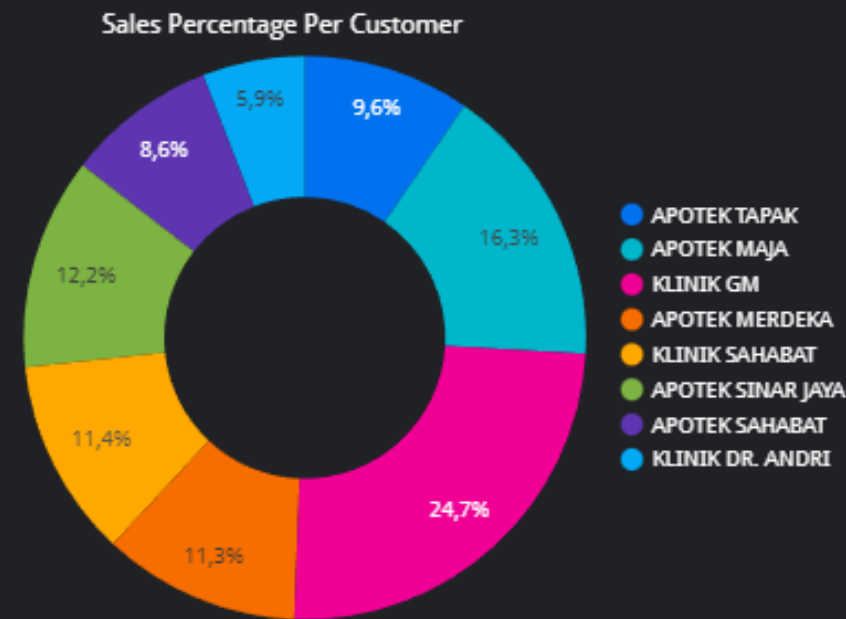
Insight :

From the graph, we can see that the number of product sales and product quantity trend almost the same (volatile trend). However, it seems to start to differ significantly in April - June 2022. This is indicate that supply product quantity in April -June 2022 more higher than the product sales of the months. As same like the first insights at previous slide that indicates an imbalance between sales and the availability of drug stocks.



TOTAL SALES & QUANTITY BY CUSTOMER

	Customer Name	Branch Area	Total Sales ▾
1.	KLINIK GM	Jakarta	Rp12.151.454,70
2.	APOTEK MAJA	Kuningan	Rp8.018.901,00
3.	APOTEK SINAR JAYA	Bekasi	Rp5.985.145,72
4.	KLINIK SAHABAT	Tangerang	Rp5.604.113,90
5.	APOTEK MERDEKA	Bandung	Rp5.585.451,85
6.	APOTEK TAPAK	Aceh	Rp4.730.392,17
7.	APOTEK SAHABAT	Padang	Rp4.239.979,50
8.	KLINIK DR. ANDRI	Lampung	Rp2.901.026,30



	Customer Name	Product Name	Total Quantity	Price	Total Sales ▾
1.	KLINIK GM	AMPICILLIN	454	128.287,20	Rp4.853.532,40
2.	APOTEK SINAR JAYA	AMPICILLIN	387	128.287,20	Rp4.137.262,20
3.	KLINIK GM	PARACETAMOL	513	83.283,60	Rp3.560.373,90
4.	APOTEK MAJA	TRAMADOL KAPSUL 50 MG	313	95.707,70	Rp2.723.319,10
5.	APOTEK MERDEKA	TRAMADOL KAPSUL 50 MG	294	104.408,40	Rp2.558.005,80
6.	APOTEK TAPAK	AMPICILLIN	233	117.596,60	Rp2.490.909,80
7.	APOTEK MAJA	ERGOTAMINE COFFEINE	484	55.105,20	Rp2.222.576,40
8.	KLINIK SAHABAT	PARACETAMOL	309	83.283,60	Rp2.144.552,70
9.	APOTEK MAJA	AMBROXOL HC	365	69.368,40	Rp2.109.955,50
10.	KLINIK GM	KLORPROMAZINA TABLET SALUT SELAPUT 100 MG	367	62.131,30	Rp2.072.926,10
11.	APOTEK MERDEKA	AMBROXOL HC	316	69.368,40	Rp1.826.701,20
12.	KLINIK GM	TETRACYCLINE KAPSUL 250 MG	417	47.902,80	Rp1.664.622,30

Insight :

This visualization show about the details of total sales per customer and per branch area and also the table of detail purchase per customer that shows their total quantity, price, and total sales for all products are purchased.

For example, the GM Clinic is the best customer with the most purchases of “Ampicillin” products, so the company decides to make it the best customer because the company has the highest sales from that customer.



04. Solutions

- The dataset especially for customer data will be perfect if it **contains of address, email, and phone number** in order to make sure that company can do some **investigation if has problems in the future or may give their some promotions.**
- Meanwhile, for product quantity (stocks) can be **adjusted according the weather conditions or the report of health data in certain areas.** We must focused in the area which diseases often occur and ensure the product needs are available and also ensure that no products accumulate and expired.





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04. Suggestion

Thank You



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Thank You!



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