FINAL TASK

VIX KIMIA FARMA

Wrahaspati Jati Zaelani

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Wrahas is a motivated freshgraduate from Padjadjaran University and a data enthusiast. Recently graduated from data science bootcamp from Rakamin Academy. Familiar working with SQL, excel,python and Vizualization tools such as google data studio.

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About The Porject

This project is a final task from my four weeks Project Based Virtual Internship Experience (VIX) on Kimia Farma. This project is about designing, creating datamart and visualizing data based on the 2022 Salicyl Brand Sales.

Tools used :

postgreSQL , Google Data Studio

CONTENT :

Design Datamart

Query Datamart base

https://docs.google.com/document/d/1HR3guelT7DCWueMLZiyFE853sBQc2_oDqhR6TmS5adc/edit?usp=share_link

Query Datamart Aggregate

https://docs.google.com/document/d/1MVGRu7fD1UcJUIM6jJguUH8YLfmBnHKLTgYthQBJUz8/edit?usp=share_link

Query Datamart Base 'Master Barang'

```sql
SELECT bds.kode_barang,bds.nama_barang,bds.kemasan,bds.harga,bt.sektor,bt.tipe,bt.nama_tipe,bt.kode_lini,bt.lini,bds.brand
FROM barang_ds AS bds
INNER JOIN barang_table AS bt ON bt.kode_barang=bds.kode_barang
GROUP BY 1,2,3,4,5,6,7,8,9,10
```

Table Base: Master Table Barang

Column	Data Type	Description
kode_barang	Character Varying	Keterangan Kode Barang
nama_barang	Character Varying	Keterangan Nama Barang
kemasan	Character Varying	Keterangan Jenis Kemasan
harga	Numeric	Keterangan Nomnal Harga
sektor	Character Varying	Keterangan Nama Sektor
tipe	Character Varying	Keterangan Jenis Tipe Produk
nama_tipe	Character Varying	Keterangan Nama Tipe

Column	Data Type	Description
kode_lini	Integer	Keterangan Kode Lini (angka)
lini	Character Varying	Keterangam Kategori Lini
brand	Character Varying	Keterangan Nama Brand

Query Datamart Base
“Master Table PenjualanPelanggan”

```
SELECT plt.id_customer,pjt.id_distributor,pjt.id_cabang,pjt.id_invoice,pjt.id_barang,
       plt.nama,pjt.tanggal,pjt.jumlah_barang,pjt.harga,pjt.mata_uang,pjt.brand_id,
       pjt.lini,plt.cabang_sales,plt.level,plt.group
FROM pelanggan_table AS plt
INNER JOIN penjualan_table AS pjt ON pjt.id_customer=plt.id_customer
GROUP BY 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15
```

Table Base
“Master Table Penjualan Pengguna”

Column	Data Type	Description
id_customer	Character Varying	Keterangan Kode ID Customer
Id_distributor	Character Varying	Keterangan Nama Kode ID DIstributor
id_cabang	Character Varying	Keterangan Kode ID Cabang
id_invoice	Character Varying	Keterangan Kode ID Invoice
id_barang	Character Varying	Keterangan Kode ID Barang
nama	Character Varying	Keterangan Nama Lokasi Penjualan
tanggal	Datetime	Keterangan Tanggal Penjualan

Column	Data Type	Description
jumlah_barang	Integer	Keterangan Jumlah Barang(angka)
harga	Numeric	Keterangan Nominal Harga Barang
mata_uang	Character Varying	Keterangan Jenis Mata Uang
brand_id	Character Varying	Keterangan Kode ID Brand
lini	Character Varying	Keterangan Kategori Lini
cabang_sales	Character Varying	Keterangan Nama Lokasi Penjualan
level	Character Varying	Keterangan Kategori Level
Group	Character Varying	Keterangan Kategori Group

Query Datamart Aggregate “Master Table”

```
CREATE TABLE master_table AS
SELECT mpp.id_customer,mpp.id_distributor,mpp.id_cabang,
    mpp.id_invoice,mtb.kode_barang,mtb.nama_barang,mtb.kemasan,mtb.brand,
       mpp.nama,mpp.tanggal,mpp.jumlah_barang,mpp.harga,mpp.mata_uang,mtb.tipe,
       (mpp.jumlah_barang * mpp.harga) AS total_sales
FROM master_penjualan_pelanggan AS mpp
INNER JOIN master_table_barang AS mtb ON mtb.lini = mpp.lini
GROUP BY 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15
```

Membuat master_table gabungan dari (table_master_barang) dan (master_penjualan_pelanggan), aghregasi yang dilakukan adalah jumlah barang yang dikali dengan harga untuk mendapatkan total sales (penjualan).

Table Aggregate “Master Table”

Column	Data Type	Description
id_customer	Character Varying	Keterangan Kode ID Customer
Id_distributor	Character Varying	Keterangan Nama Kode ID DIstributor
id_cabang	Character Varying	Keterangan Kode ID Cabang
id_invoice	Character Varying	Keterangan Kode ID Invoice
kode_barang	Character Varying	Keterangan Kode Barang
nama_barang	Character Varying	Keterangan Nama Barang
kemasan	Character Varying	Keterangan Jenis Kemasan

Column	Data Type	Description
brand	Character Varying	Keterangan Nama Brand
nama	Character Varying	Keterangan Nama Lokasi Penjualan
tanggal	Datetime	Keterangan Tanggal Penjualan
jumlah_barang	Integer	Keterangan Jumlah Barang
Harga	Numeric	Keterangan Harga
mata_uang	Character Varying	Keterangan Jenis Mata Uang
tipe	Character Varying	Keterangan Jenis Tipe
total_sales	Numeric	Keterangan Jumlah (harga x jumlah_barang) = Total Penjualan

Query Datamart Aggregate “Monthly Brand Revenue”

```sql
--Monthly Brand Revenue
select brand, sum(jumlah_barang * harga) as revenue,
date_part('month', tanggal) as month
from master_table
group by 1,3
order by 3
```

Table Aggregate
“Monthly Brand Revenue”

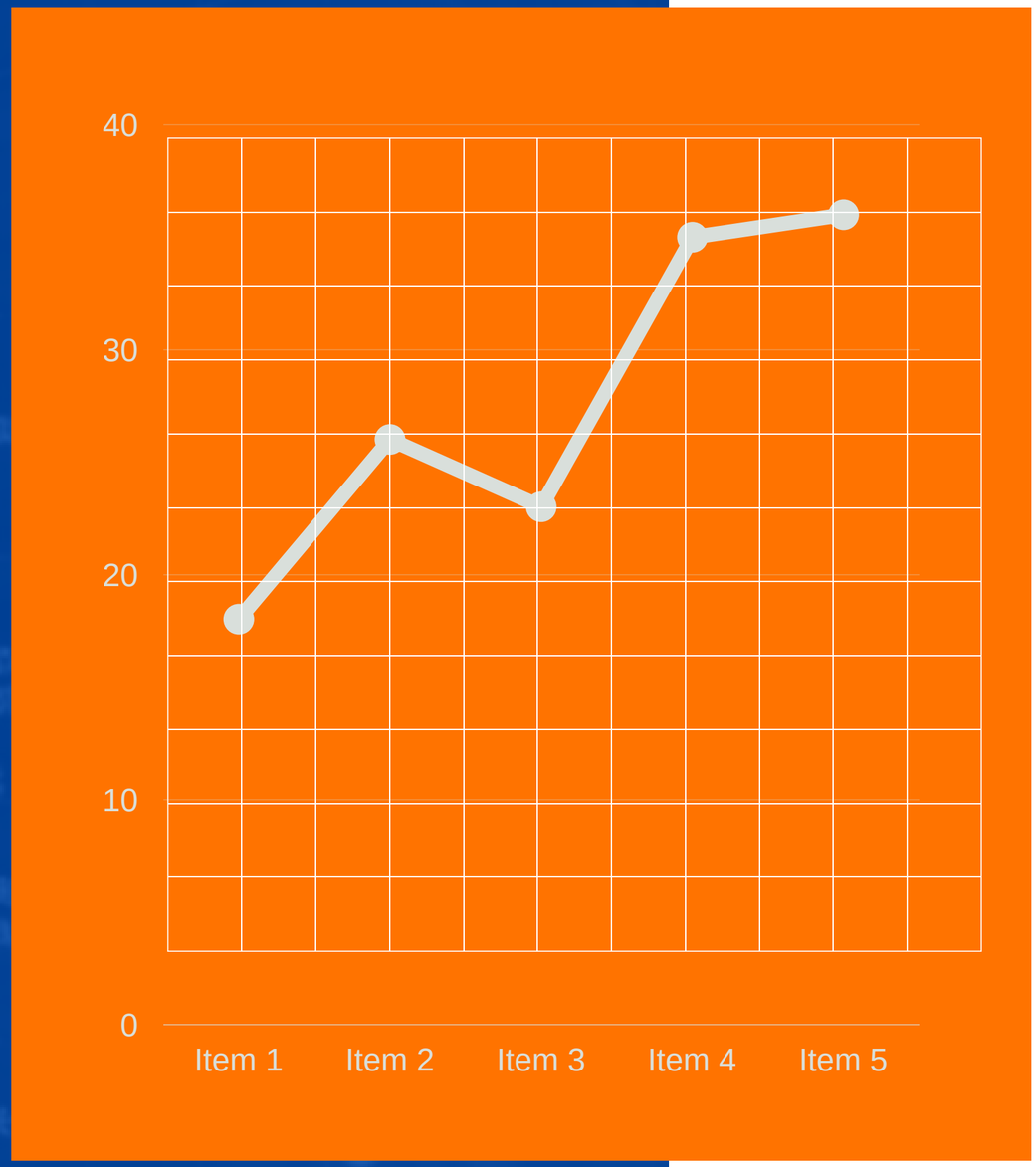
Column	Data Type	Description
Brand	Character Varying	Keterangan Nama Brand
Revenue	Numeric	Keterangan Jumlah Revenue
Month	Datetime	Keterangan Bulan

Query Datamart Aggregate
” Location Revenue and Quantity ”

```sql
-- Total Revenue dan quantitiy sales Per Lokasi Penjualan
select nama AS lokasi_penjualan,
sum(jumlah_barang * harga) as revenue,
sum(jumlah_barang) as average_quantity
from master_table
group by 1
order by 2 ASC
```

Table Aggregate
“ Location Revenue and Quantity ”

Column	Data Type	Description
Lokasi_Penjualan	Character Varying	Keterangan Lokasi Penjualan
Revenue	Numeric	Keterangan Jumlah Revenue
Average Quantity	Integer	Keterangan Jumlah rata-rata jumlah barang terjual



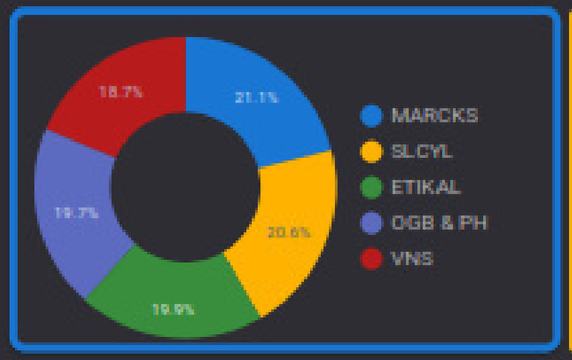
Data Visualization

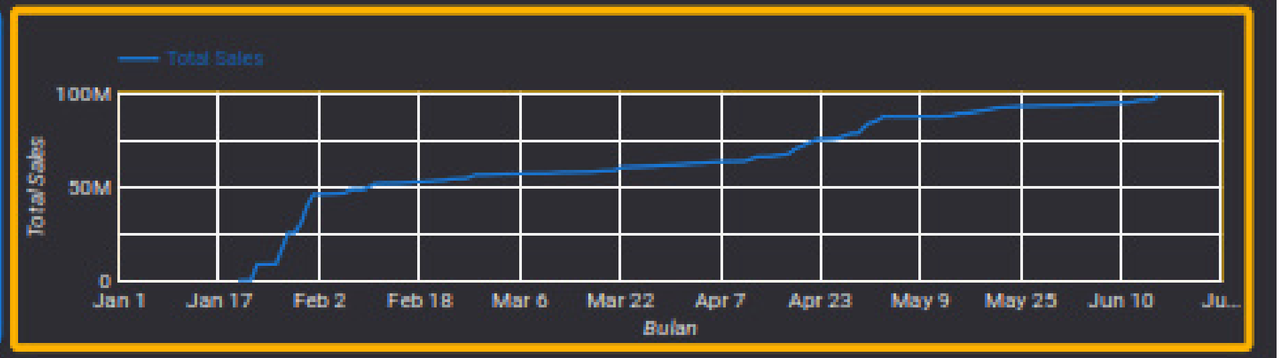
Link :

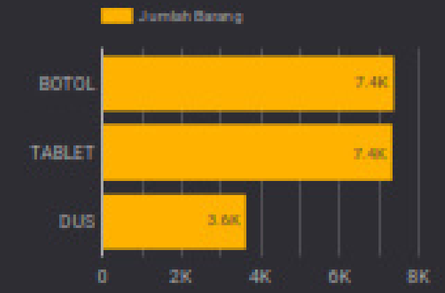
https://datastudio.google.com/reporting/df073b00-126c-453e-a37b-d54dd1bd01ee

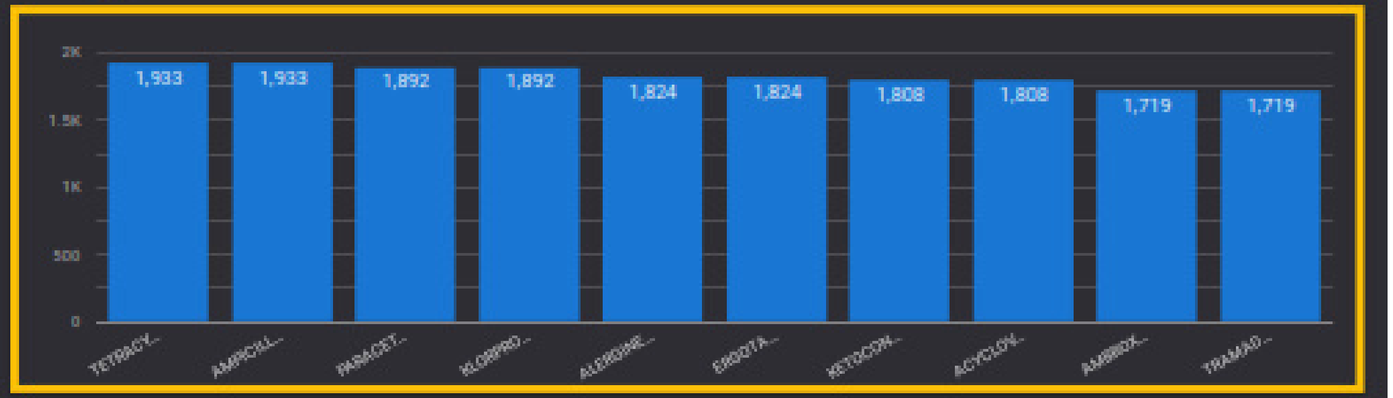
Salicyl Sales
VIX Kimia Farma

Record Count	Brand	Nama Barang	Jumlah Barang	Total Sales
700	5	10	18.4K	98,432,930.28









Lokasi	Jumlah Barang	Total Sales
KLINIK GM	3,502	24,302,909.4
APOTEK MAJA	3,148	16,037,802
APOTEK MERDEKA	2,534	11,170,903.7
APOTEK TAPAK	2,302	9,460,784.34
KLINIK SAHABAT	2,254	11,208,227.8
APOTEK SINAR JAYA	2,124	11,970,291.44
APOTEK SAHABAT	1,566	8,479,959
KLINIK DR. ANDRI	922	5,802,052.6