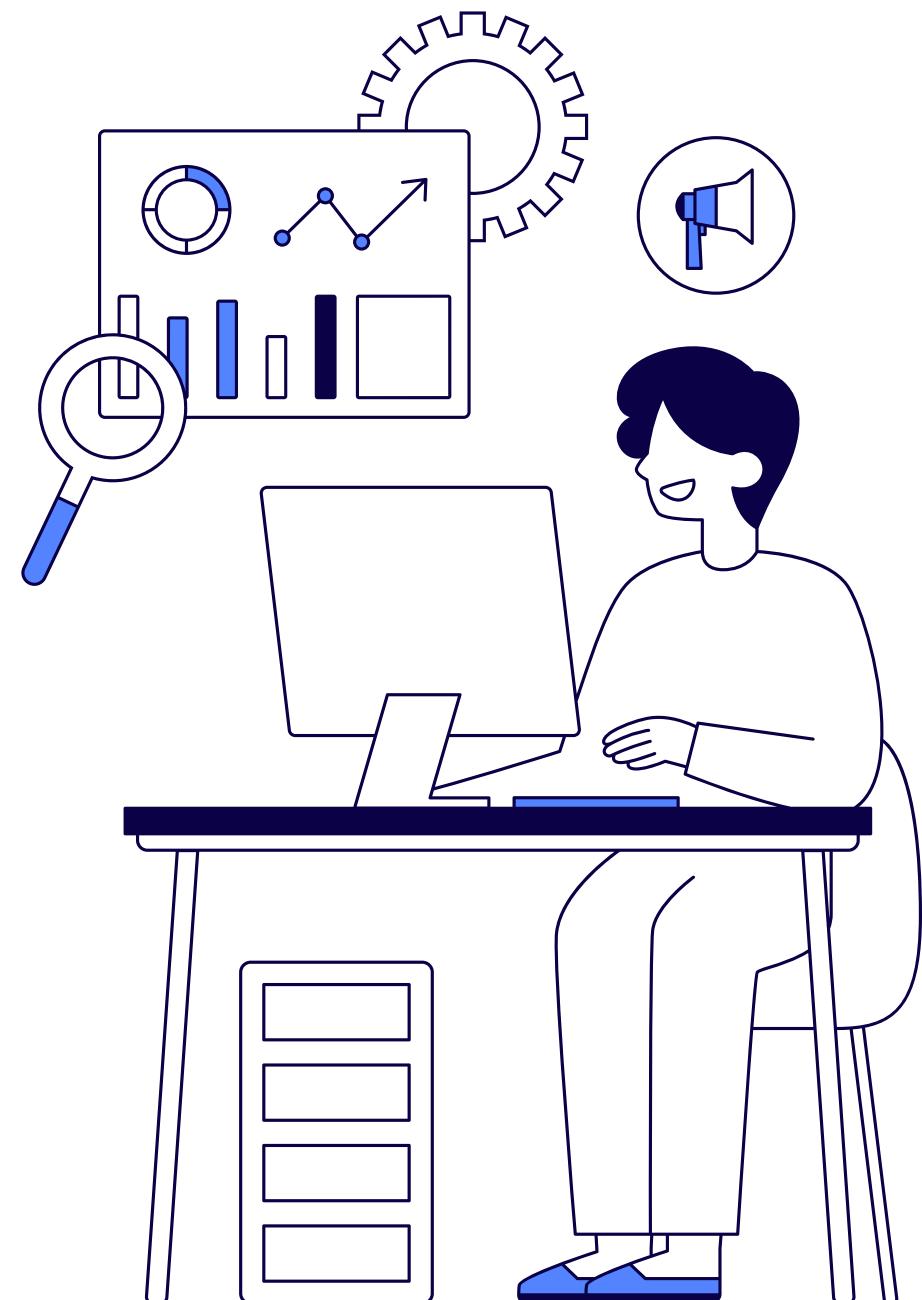


# **Kimia Farma's Business Performance Analysis 2020-2023**

**Big Data Analytics**

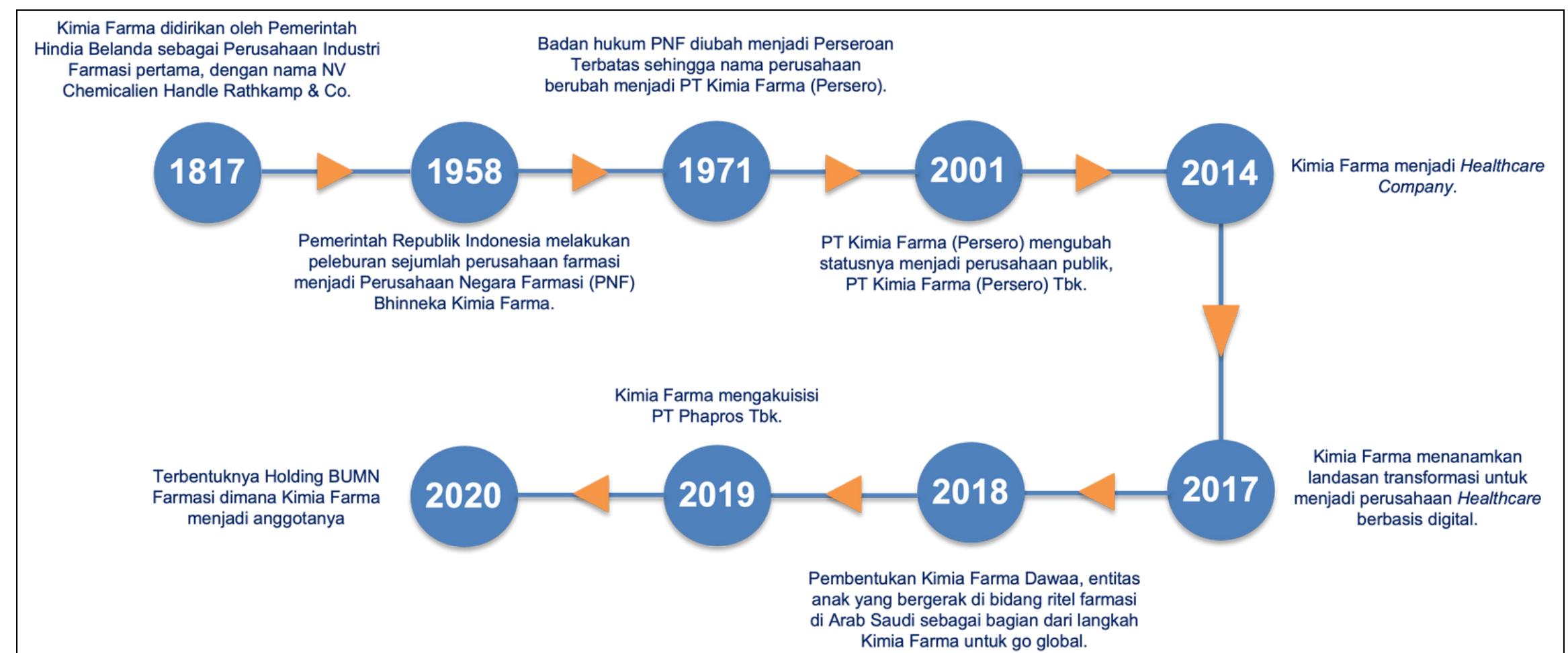
**Presented by  
Aisyah Aira Putri Maharani**



# About Company



Kimia Farma was the **first pharmaceutical industrial company in Indonesia** which was founded by the Dutch East Indies Government in 1817. The name of this company was originally **NV Chemicalien Handle Rathkamp & Co.**



# Project Portfolio

As a Big Data Analytics Intern at Kimia Farma, I need to understand about **data and analytical skills**.

**This project aims to evaluate Kimia Farma's business performance from 2020 to 2023 by creating analysis tables from the aggregation process and dashboards as visual output.**

## Goals for analysis table:

- transaction\_id : kode id transaksi,
- date : tanggal transaksi dilakukan,
- branch\_id : kode id cabang Kimia Farma,
- branch\_name : nama cabang Kimia Farma,
- kota : kota cabang Kimia Farma,
- provinsi : provinsi cabang Kimia Farma,
- rating\_cabang : penilaian konsumen terhadap cabang Kimia Farma
- customer\_name : Nama customer yang melakukan transaksi,
- product\_id : kode product obat,
- product\_name : nama obat,
- actual\_price : harga obat,
- discount\_percentage : Persentase diskon yang diberikan pada obat,
- percentase\_gross\_laba : Persentase laba yang seharusnya diterima dari obat dengan ketentuan berikut:
  - Harga <= Rp 50.000 -> laba 10%
  - Harga > Rp 50.000 - 100.000 -> laba 15%
  - Harga > Rp 100.000 - 300.000 -> laba 20%
  - Harga > Rp 300.000 - 500.000 -> laba 25%
  - Harga > Rp 500.000 -> laba 30%,
- nett\_sales : harga setelah diskon,
- nett\_profit : keuntungan yang diperoleh Kimia Farma,
- rating\_transaksi : penilaian konsumen terhadap transaksi yang dilakukan.

## Goals for Dashboard:

- Judul Dashboard
- Summary Dashboard
- Filter Control
- Snapshot Data
- Perbandingan Pendapatan Kimia Farma dari tahun ke tahun
- Top 10 Total transaksi cabang provinsi
- Top 10 Nett sales cabang provinsi
- Top 5 Cabang Dengan Rating Tertinggi, namun Rating Transaksi Terendah
- Indonesia's Geo Map Untuk Total Profit Masing-masing Provinsi
- Dan analisis lainnya yang dapat anda eksplorasi.

## Raw Data:

- kf\_final\_transaction.csv ([link](#))
- kf\_inventory.csv ([link](#))
- kf\_kantor\_cabang.csv ([link](#))
- kf\_product.csv ([link](#))

## Tools:



BigQuery



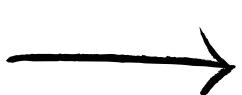
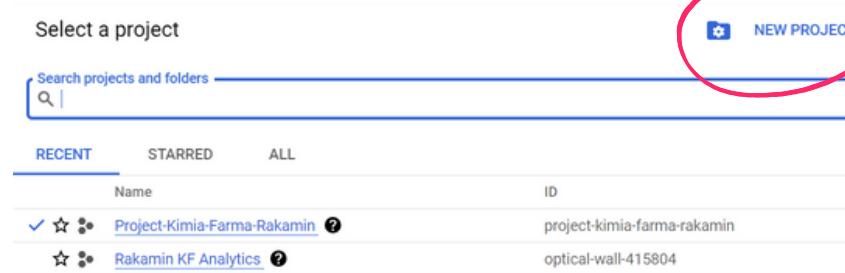
Looker Studio

# Importing Dataset to BigQuery

The Step:



BigQuery

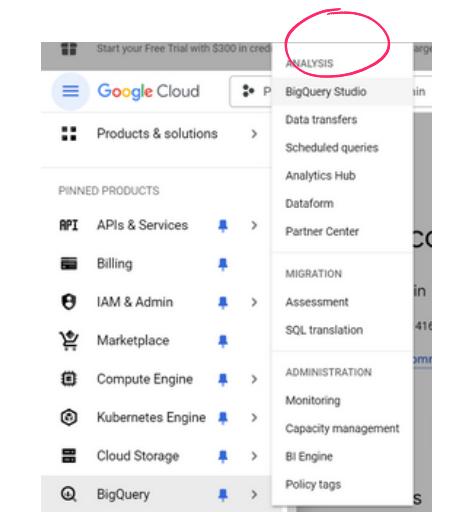
Select a project

Search projects and folders

RECENT STARRED ALL

Name	ID
<a href="#">Project-Kimia-Farma-Rakamin</a>	project-kimia-farma-rakamin
<a href="#">Rakamin KF Analytics</a>	optical-wall-415804

1. Go to bigQuery



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ANALYSIS

- Google Cloud
- BigQuery Studio
- Products & solutions
- PINNED PRODUCTS
- APIs & Services
- Billing
- IAM & Admin
- Marketplace
- Compute Engine
- Kubernetes Engine
- Cloud Storage
- BigQuery

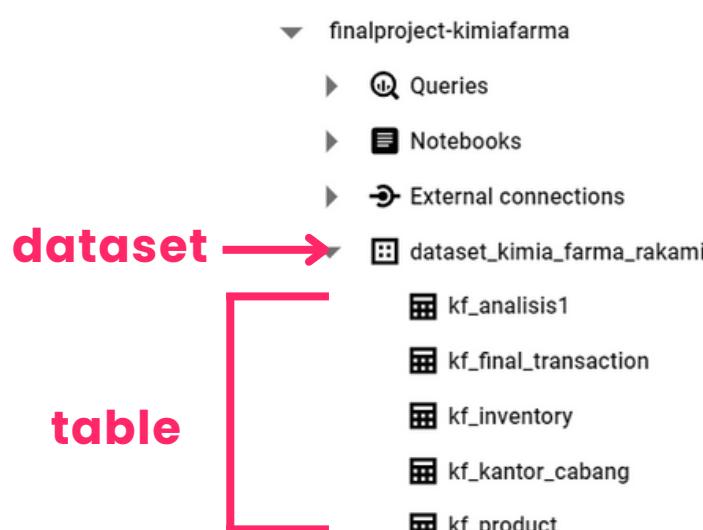
Popular sources

- Local file
- Google Cloud Storage
- Connections to external data sources

2. Create new project

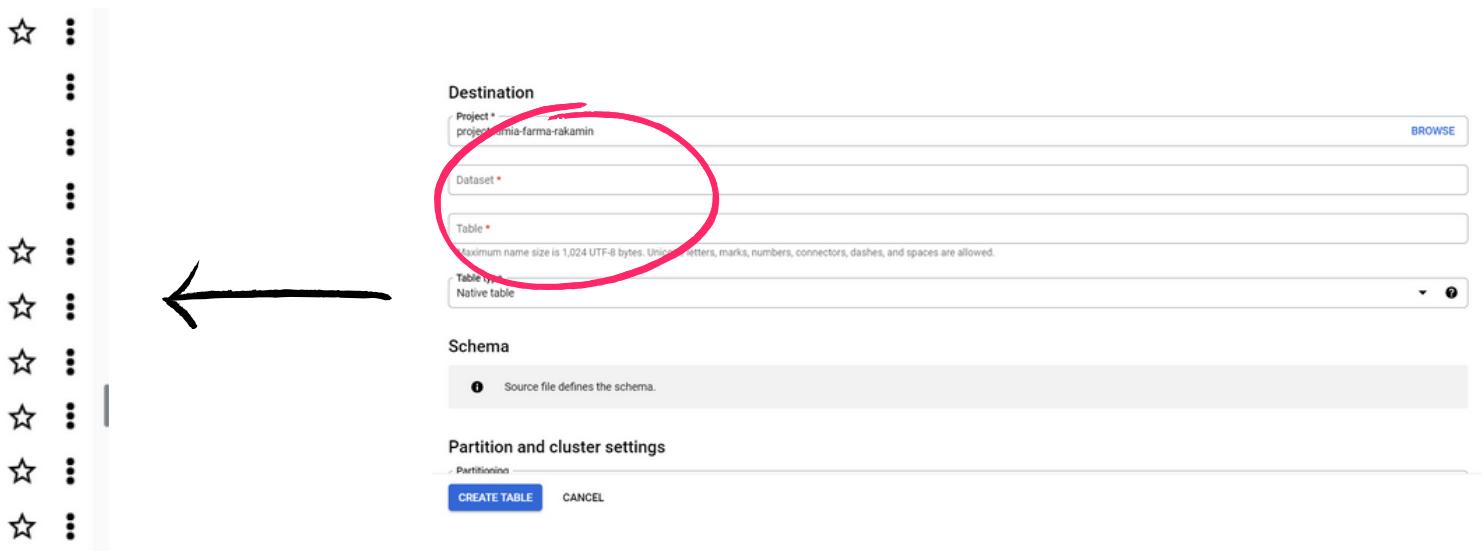
3. Go to BigQuery Studio

4. Add the file



finalproject-kimiafarm

- Queries
- Notebooks
- External connections
- dataset\_kimia\_farma\_rakamin
  - kf\_analysis1
  - kf\_final\_transaction
  - kf\_inventory
  - kf\_kantor\_cabang
  - kf\_product



Destination

Project: project-kimia-farma-rakamin

Dataset: dataset\_kimia\_farma\_rakamin

Table: kf\_final\_transaction

Schema

Partition and cluster settings

CREATE TABLE CANCEL

5. Browse the file

7. Done

6. Create the dataset and named the table

# Analysys Table (Data Mart)

Row	transaction_id	date	branch_id	branch_name	kota	provinsi	rating_cabang	customer_name
1	TRX4840961	2021-03-10	51463	Kimia Farma - Apotek	Ternate	Maluku Utara	4.4	Robin Simpson
2	TRX4087575	2022-05-13	23248	Kimia Farma - Apotek	Bima	Nusa Tenggara Barat	4.1	Jason Huff
3	TRX1152024	2020-09-05	35930	Kimia Farma - Apotek	Tasikmalaya	Jawa Barat	4.1	Autumn Barry
4	TRX5233983	2022-01-26	45072	Kimia Farma - Apotek	Surabaya	Jawa Timur	4.7	Jennifer Dennis
5	TRX7582922	2023-12-24	99735	Kimia Farma - Apotek	Banda Aceh	Aceh	4.1	Matthew Peterson
6	TRX3572915	2023-05-24	42922	Kimia Farma - Apotek	Palangkaraya	Kalimantan Tengah	4.1	Brian Mcfarland
7	TRX8034100	2021-11-15	14495	Kimia Farma - Apotek	Banjarmasin	Kalimantan Selatan	4.8	Thomas Perez
8	TRX2967006	2021-12-08	87938	Kimia Farma - Apotek	Samarinda	Kalimantan Timur	4.5	Amy Brandt
9	TRX4662458	2020-04-27	29922	Kimia Farma - Apotek	Purwokerto	Jawa Tengah	3.9	Sydney Gutierrez
10	TRX3678735	2021-05-23	36256	Kimia Farma - Apotek	Sukabumi	Jawa Barat	4.1	Oscar Valdez

Row	customer_name	product_id	product_name	actual_price	discount_percent	percentase_gros	nett_sales	nett_profit	rating_transaksi
1 4.4	Robin Simpson	KF601	Psycholeptics drugs, Anxiolytic...	512000	0.04	0.3	491520.0	-20479.7	4.8
2 4.1	Jason Huff	KF601	Psycholeptics drugs, Anxiolytic...	512000	0.04	0.3	491520.0	-20479.7	4.4
3 4.1	Autumn Barry	KF601	Psycholeptics drugs, Anxiolytic...	512000	0.04	0.3	491520.0	-20479.7	4.5
4 4.7	Jennifer Dennis	KF601	Psycholeptics drugs, Anxiolytic...	512000	0.04	0.3	491520.0	-20479.7	3.3
5 4.1	Matthew Peterson	KF601	Psycholeptics drugs, Anxiolytic...	512000	0.04	0.3	491520.0	-20479.7	3.8
6 4.1	Brian Mcfarland	KF601	Psycholeptics drugs, Anxiolytic...	512000	0.04	0.3	491520.0	-20479.7	3.4
7 4.8	Thomas Perez	KF601	Psycholeptics drugs, Anxiolytic...	512000	0.04	0.3	491520.0	-20479.7	3.4
8 4.5	Amy Brandt	KF601	Psycholeptics drugs, Anxiolytic...	512000	0.04	0.3	491520.0	-20479.7	4.8
9 3.9	Sydney Gutierrez	KF601	Psycholeptics drugs, Anxiolytic...	512000	0.04	0.3	491520.0	-20479.7	3.2
10 4.1	Oscar Valdez	KF601	Psycholeptics drugs, Anxiolytic...	512000	0.04	0.3	491520.0	-20479.7	3.6

# BigQuery Syntax

```
1 CREATE TABLE dataset_kimia_farma_rakamin.kf_analisis1 AS
2 SELECT
3     x.transaction_id, x.date, x.branch_id, x.branch_name, x.kota, x.provinsi, x.rating_cabang, x.customer_name, x.product_id, x.product_name, x.actual_price,
4     x.discount_percentage, x.persentase_gross_laba, x.nett_sales, (x.persentase_gross_laba-(x.actual_price-x.nett_sales)) nett_profit, x.rating_transaksi
5 FROM (
6     SELECT
7         ft.transaction_id, ft.date, kc.branch_id, kc.branch_name, kc.kota, kc.provinsi, kc.rating as rating_cabang, ft.customer_name, ft.product_id,
8         pd.product_name, ft.price as actual_price, ft.discount_percentage,
9         CASE
10             WHEN pd.price <= 50000 THEN 0.1
11             WHEN pd.price > 50000 AND pd.price <=100000 THEN 0.15
12             WHEN pd.price > 10000 AND pd.price<= 300000 THEN 0.20
13             WHEN pd.price > 300000 AND pd.price<= 500000 THEN 0.25
14             WHEN pd.price > 500000 then 0.30
15         END AS persentase_gross_laba,
16         (pd.price-(pd.price*ft.discount_percentage))nett_sales,
17         ft.rating as rating_transaksi
18     FROM
19         dataset_kimia_farma_rakamin.kf_final_transaction as ft
20     LEFT JOIN
21         dataset_kimia_farma_rakamin.kf_kantor_cabang as kc ON ft.branch_id = kc.branch_id
22     LEFT JOIN
23         dataset_kimia_farma_rakamin.kf_product as pd ON ft.product_id = pd.product_id
24     | ) x
```

# Dashboard Performance Analytics

Hello! Welcome to Kimia Farma's Business Performance Analysis Dashboard 2020-2023

 Product **672.458**

 Customers **36.469.128.982**

 Province **31** City **70**

Filter Option

City
Province
Date
branch\_na...



**Top 10 provincial branch total transactions**

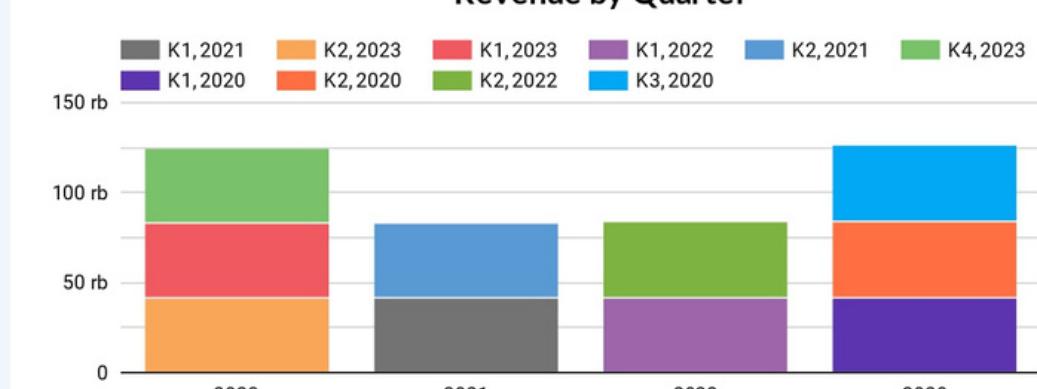
Branch Name	Province	Jumlah Transaksi
1. Kimia Farma - Apotek	Jawa Barat	71.508
2. Kimia Farma - Klinik-Apotek-Laboratori...	Jawa Barat	69.874
3. Kimia Farma - Klinik & Apotek	Jawa Barat	57.341
4. Kimia Farma - Klinik-Apotek-Laboratori...	Jawa Tengah	17.567
5. Kimia Farma - Klinik-Apotek-Laboratori...	Sumatera Utara	17.561
6. Kimia Farma - Apotek	Sumatera Utara	16.903
7. Kimia Farma - Klinik & Apotek	Jawa Timur	15.684
8. Kimia Farma - Klinik & Apotek	Jawa Tengah	15.640
9. Kimia Farma - Klinik & Apotek	Sumatera Utara	13.714
10. Kimia Farma - Klinik-Apotek-Laboratori...	Sulawesi Utara	13.706

**Top 5 Branch With the Highest Rating & Lowest Rating Transactions**

Branch Name	Province	kota	Branch Rating	Rating Transaction
1. Kimia Farma - Kli...	Sulawesi Utara	Kotamobagu	25	20
2. Kimia Farma - Ap...	Nusa Tenggara Ba...	Bima	25	20
3. Kimia Farma - Ap...	Jawa Barat	Tasikmalaya	25	20
4. Kimia Farma - Ap...	Jawa Timur	Surabaya	25	20
5. Kimia Farma - Ap...	Aceh	Banda Aceh	25	20

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**Revenue by Quarter**



**Indonesia's Geo Map for Total Profit in Each Province**



Google

nett\_profit -1.463,8 • 120,3

**Top 10 provincial branch total Sales**

Branch Name	Province	Total Sales
1. Kimia Farma - Apotek	Jawa Barat	Rp34.196.247.476
2. Kimia Farma - Klinik-Apotek-Laboratori...	Jawa Barat	Rp33.291.979.665
3. Kimia Farma - Klinik & Apotek	Jawa Barat	Rp27.381.367.734
4. Kimia Farma - Klinik-Apotek-Laboratori...	Jawa Tengah	Rp8.390.957.379
5. Kimia Farma - Klinik-Apotek-Laboratori...	Sumatera Utara	Rp8.372.000.917
6. Kimia Farma - Apotek	Sumatera Utara	Rp8.047.112.187
7. Kimia Farma - Klinik & Apotek	Jawa Timur	Rp7.478.397.532
8. Kimia Farma - Klinik & Apotek	Jawa Tengah	Rp7.476.471.938
9. Kimia Farma - Klinik-Apotek-Laboratori...	Sulawesi Utara	Rp6.544.240.777
10. Kimia Farma - Klinik & Apotek	Sumatera Utara	Rp6.533.046.793

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# Github Repository

[https://github.com/aisyaaaptr/Big\\_Data\\_Analysis-Kimia\\_Farma\\_Business\\_Performance-Project\\_Based\\_Internship](https://github.com/aisyaaaptr/Big_Data_Analysis-Kimia_Farma_Business_Performance-Project_Based_Internship)

# Looker Studio

<https://lookerstudio.google.com/reporting/bf4da7b4-488a-4e77-834e-fc0bfae7633c>