Courses and Certification

SQL for Data Science | **courses.edx.org/certificates/f50e46a89e97410da49d69b34c30bf35**

<Maret,2023>

About Company

Kimia Farma is the first pharmaceutical industry company in Indonesia, established by the Dutch East Indies government in 1817. The original name of the company was NV Chemicalien Handle Rathkamp & Co.

Vision: To become the primary choice for integrated Healthcare companies and generate sustainable value.

Mission :

1. Conducting business activities in the fields of chemical and pharmaceutical industry, trade and distribution networks, pharmaceutical retail, and healthcare services, as well as asset optimization.

2. Managing the company with Good Corporate Governance and operational excellence supported by professional Human Resources (HR).

3. Providing added value and benefits for all stakeholders.

kimia farma

Project **Portfolio**

A key project involves evaluating Kimia Farma's business performance from 2020 to 2023, utilizing available data that includes transaction records, product information, inventory details, and branch office locations. By analysis these data, we can form a comprehensive view of Kimia Farma's business performance, identify key trends, and understand where the company excelled or faced hurdles during these years.

Project explanation video here!
Link Github here!

1. Importing Dataset to BigQuery

1. Login to Big Query
2. Add new project "rakamin-kf-analytics"
3. Create kimia_farma dataset
4. Create new table inside kimia_farma dataset
5. Import data to the tables
6. The result is as shown in the image.
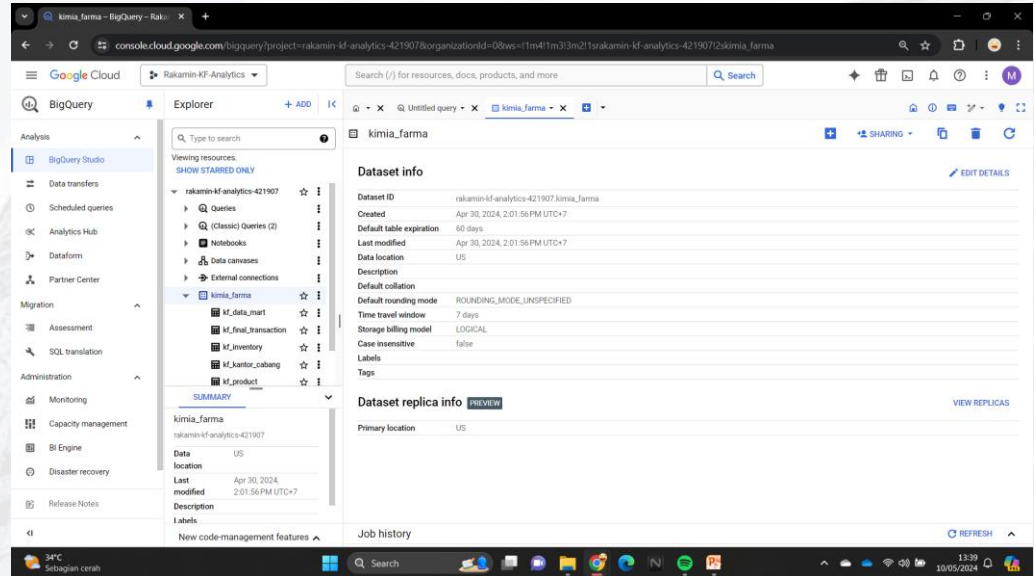
2. Tabel Analisa

kf_data_mart

QUERY | SHARE | COPY | SNAPSHOT | DELETE | EXPORT

SCHEMA | DETAILS | PREVIEW | LINEAGE | DATA PROFILE | DATA QUALITY

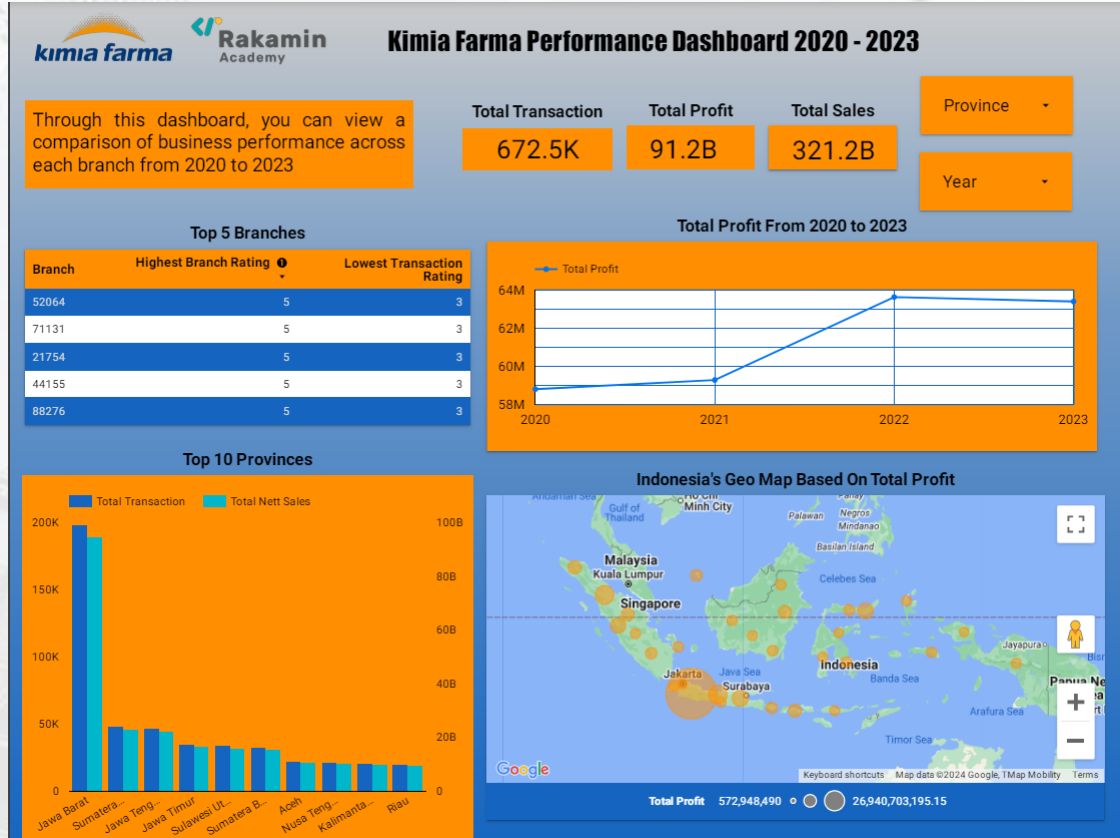| Row	transaction_id	date	branch_id	branch_name	kota	provinsi	rating_cabang	customer_name	product_id	product_name	actual_price	discount_perc	persentase_gr	nett_sales	nett_profit	rating_transaksi
1	TRX3182354	2022-09-30	41183	Kimia Farma - Apotek	Gorontalo	Gorontalo	4.8	Jaclyn Hill	KF601	Psycholeptics drugs, Anxiolytic...	512000	0.04	0.3	491520.0	147456.0	5.0
2	TRX3033874	2023-09-03	70395	Kimia Farma - Apotek	Medan	Sumatera Utara	4.6	Nicholas Heath	KF601	Psycholeptics drugs, Anxiolytic...	512000	0.04	0.3	491520.0	147456.0	4.4
3	TRX5078459	2023-02-13	95280	Kimia Farma - Apotek	Banda Aceh	Aceh	4.0	Kristin Ruiz	KF601	Psycholeptics drugs, Anxiolytic...	512000	0.04	0.3	491520.0	147456.0	5.0
4	TRX5901916	2023-03-31	61195	Kimia Farma - Apotek	Sibolga	Sumatera Utara	4.4	Rachel Fuller	KF601	Psycholeptics drugs, Anxiolytic...	512000	0.04	0.3	491520.0	147456.0	3.1
5	TRX6238707	2022-11-03	25572	Kimia Farma - Apotek	Bontang	Kalimantan Timur	3.9	Terrence Olson	KF601	Psycholeptics drugs, Anxiolytic...	512000	0.04	0.3	491520.0	147456.0	3.3
6	TRX8448216	2020-06-26	91651	Kimia Farma - Apotek	Bitung	Sulawesi Utara	4.2	Summer Roth	KF601	Psycholeptics drugs, Anxiolytic...	512000	0.04	0.3	491520.0	147456.0	4.5
7	TRX3174666	2021-09-23	17963	Kimia Farma - Apotek	Gorontalo	Gorontalo	4.7	Courtney Shepherd	KF601	Psycholeptics drugs, Anxiolytic...	512000	0.04	0.3	491520.0	147456.0	4.8
8	TRX5221869	2023-11-11	73710	Kimia Farma - Apotek	Probolinggo	Jawa Timur	4.0	Adam Luna	KF601	Psycholeptics drugs, Anxiolytic...	512000	0.04	0.3	491520.0	147456.0	4.3
9	TRX8509843	2020-03-01	61195	Kimia Farma - Apotek	Sibolga	Sumatera Utara	4.4	Edwin Davis	KF601	Psycholeptics drugs, Anxiolytic...	512000	0.04	0.3	491520.0	147456.0	4.0
10	TRX2341129	2022-03-14	20505	Kimia Farma - Apotek	Cilacap	Jawa Tengah	4.5	Rachel Whitaker	KF601	Psycholeptics drugs, Anxiolytic...	512000	0.04	0.3	491520.0	147456.0	3.6
11	TRX4062033	2021-04-18	49260	Kimia Farma - Apotek	Ambon	Maluku	4.2	Angela Johnson	KF601	Psycholeptics drugs, Anxiolytic...	512000	0.04	0.3	491520.0	147456.0	3.8
12	TRX6316857	2022-09-06	21490	Kimia Farma - Apotek	Jayapura	Papua	4.1	Debbie Vaughn	KF601	Psycholeptics drugs, Anxiolytic...	512000	0.04	0.3	491520.0	147456.0	3.8
13	TRX5669445	2021-05-11	69060	Kimia Farma - Apotek	Ciamis	Jawa Barat	4.4	Claudia James	KF601	Psycholeptics drugs, Anxiolytic...	512000	0.04	0.3	491520.0	147456.0	3.8
14	TRX3823931	2022-09-11	90176	Kimia Farma - Apotek	Dumai	Riau	4.7	Sergio Garcia	KF601	Psycholeptics drugs, Anxiolytic...	512000	0.04	0.3	491520.0	147456.0	4.3
15	TRX1363347	2020-04-03	73159	Kimia Farma - Apotek	Tomohon	Sulawesi Utara	4.7	Melissa Gross	KF601	Psycholeptics drugs, Anxiolytic...	512000	0.04	0.3	491520.0	147456.0	4.8
16	TRX3966485	2020-09-13	69761	Kimia Farma - Apotek	Subang	Jawa Barat	4.9	Christopher Griffith	KF601	Psycholeptics drugs, Anxiolytic...	512000	0.04	0.3	491520.0	147456.0	3.8
17	TRX7698521	2023-12-16	58928	Kimia Farma - Apotek	Solok	Sumatera Barat	4.0	Marissa Oneal	KF601	Psycholeptics drugs, Anxiolytic...	512000	0.04	0.3	491520.0	147456.0	3.2
18	TRX2220149	2022-12-24	24789	Kimia Farma - Apotek	Mataram	Nusa Tenggara Barat	4.2	Justin Jones	KF601	Psycholeptics drugs, Anxiolytic...	512000	0.04	0.3	491520.0	147456.0	4.4
19	TRX9689604	2020-09-08	13935	Kimia Farma - Apotek	Tebing Tinggi	Sumatera Utara	4.5	Rachel Wells	KF601	Psycholeptics drugs, Anxiolytic...	512000	0.04	0.3	491520.0	147456.0	3.4
20	TRX9984060	2020-06-27	65584	Kimia Farma - Apotek	Semarang	Jawa Tengah	5.0	Michael Novak	KF601	Psycholeptics drugs, Anxiolytic...	512000	0.04	0.3	491520.0	147456.0	3.9
21	TRX1159366	2020-09-16	58928	Kimia Farma - Apotek	Solok	Sumatera Barat	4.0	Cody Fuller	KF601	Psycholeptics drugs, Anxiolytic...	512000	0.04	0.3	491520.0	147456.0	4.1
22	TRX9751260	2023-02-25	63673	Kimia Farma - Apotek	Sorong	Papua Barat	4.8	Debra Diaz	KF601	Psycholeptics drugs, Anxiolytic...	512000	0.04	0.3	491520.0	147456.0	3.7
23	TRX8066197	2023-09-29	26025	Kimia Farma - Apotek	Kotamobagu	Sulawesi Utara	4.8	Jorge Palmer	KF601	Psycholeptics drugs, Anxiolytic...	512000	0.04	0.3	491520.0	147456.0	4.4
24	TRX9654415	2021-01-18	12406	Kimia Farma - Apotek	Bitung	Sulawesi Utara	4.2	Jonathan Herman	KF601	Psycholeptics drugs, Anxiolytic...	512000	0.04	0.3	491520.0	147456.0	4.9
25	TRX6970218	2021-09-23	47927	Kimia Farma - Apotek	Jambi	Jambi	4.7	Nicole Hayes	KF601	Psycholeptics drugs, Anxiolytic...	512000	0.04	0.3	491520.0	147456.0	5.0
26	TRX5022925	2021-06-10	91008	Kimia Farma - Apotek	Cilacap	Jawa Tengah	4.8	Sharon Thomas	KF601	Psycholeptics drugs, Anxiolytic...	512000	0.04	0.3	491520.0	147456.0	3.5
27	TRX1819586	2022-06-20	58132	Kimia Farma - Apotek	Padang Sidempuan	Sumatera Utara	4.5	Alicia Wilson	KF601	Psycholeptics drugs, Anxiolytic...	512000	0.04	0.3	491520.0	147456.0	4.3
28	TRX2991509	2020-09-29	65315	Kimia Farma - Apotek	Semarang	Jawa Tengah	4.0	Daniel Knight	KF601	Psycholeptics drugs, Anxiolytic...	512000	0.04	0.3	491520.0	147456.0	3.4
29	TRX2780415	2022-09-13	66525	Kimia Farma - Apotek	Sibolga	Sumatera Utara	4.7	Benjamin Mills	KF601	Psycholeptics drugs, Anxiolytic...	512000	0.04	0.3	491520.0	147456.0	4.3
30	TRX5770338	2023-07-19	89099	Kimia Farma - Apotek	Indramayu	Jawa Barat	4.1	Julie Flores	KF601	Psycholeptics drugs, Anxiolytic...	512000	0.04	0.3	491520.0	147456.0	4.1
31	TRX3169600	2023-11-09	59559	Kimia Farma - Apotek	Yogyakarta	DI Yogyakarta	4.8	Andrew Peterson	KF601	Psycholeptics drugs, Anxiolytic...	512000	0.04	0.3	491520.0	147456.0	4.9
32	TRX6016673	2021-12-26	41131	Kimia Farma - Apotek	Yogyakarta	DI Yogyakarta	4.8	Jasmin Wood	KF601	Psycholeptics drugs, Anxiolytic...	512000	0.04	0.3	491520.0	147456.0	4.2
33	TRX7450599	2020-09-23	96667	Kimia Farma - Apotek	Bekasi	Jawa Barat	4.6	Benjamin Johnson	KF601	Psycholeptics drugs, Anxiolytic...	512000	0.04	0.3	491520.0	147456.0	4.2
34	TRX1937686	2021-06-09	27940	Kimia Farma - Apotek	Denpasar	Bali	4.3	Allison Allen	KF601	Psycholeptics drugs, Anxiolytic...	512000	0.04	0.3	491520.0	147456.0	4.4
35	TRX3670814	2021-06-07	40222	Kimia Farma - Apotek	Purwokerto	Jawa Tengah	4.1	Christopher Wood	KF601	Psycholeptics drugs, Anxiolytic...	512000	0.04	0.3	491520.0	147456.0	3.6
36	TRX1747393	2022-10-08	17469	Kimia Farma - Apotek	Lubuklinggau	Sumatera Selatan	3.9	Suzanne Gutierrez	KF601	Psycholeptics drugs, Anxiolytic...	512000	0.04	0.3	491520.0	147456.0	4.7
37	TRX4840961	2021-03-10	51463	Kimia Farma - Apotek	Ternate	Maluku Utara	4.4	Robin Simpson	KF601	Psycholeptics drugs, Anxiolytic...	512000	0.04	0.3	491520.0	147456.0	4.8
38	TRX4087575	2022-05-13	23248	Kimia Farma - Apotek	Bima	Nusa Tenggara Barat	4.1	Jason Huff	KF601	Psycholeptics drugs, Anxiolytic...	512000	0.04	0.3	491520.0	147456.0	4.0
39	TRX8234018	2022-09-14	28944	Kimia Farma - Apotek	Indramayu	Jawa Barat	4.1	Garrett Salas	KF601	Psycholeptics drugs, Anxiolytic...	512000	0.04	0.3	491520.0	147456.0	4.0
40	TRX4093521	2021-12-28	47927	Kimia Farma - Apotek	Jambi	Jambi	4.7	William Medina	KF601	Psycholeptics drugs, Anxiolytic...	512000	0.04	0.3	491520.0	147456.0	4.2

3. BigQuery Syntax

1. We need to know which data is required.
2. We also need to know which table contains the required data.
3. Start building a query by selecting the columns we need.
4. Then join tables by identifying common columns between them.
5. Don't forget to alias the tables when we're joining so we don't get confused about which table the data is coming from.
6. Add a CREATE TABLE statement to create a new table.

kf_data_mart_query   ▶ RUN   💾 SAVE QUERY (CLASSIC) ▾   👥 SHARE ▾

```sql
1   CREATE TABLE kimia_farma.kf_data_mart AS (
2     SELECT ft.transaction_id
3       , ft.date
4       , ft.branch_id
5       , kc.branch_name
6       , kc.kota
7       , kc.provinsi
8       , kc.rating AS rating_cabang
9       , ft.customer_name
10      , pr.product_id
11      , pr.product_name
12      , pr.price AS actual_price
13      , ft.discount_percentage
14      , (CASE
15          WHEN pr.price <= 50000 THEN 0.10
16          WHEN pr.price > 50000 AND pr.price <= 100000 THEN 0.15
17          WHEN pr.price > 100000 AND pr.price <= 300000 THEN 0.20
18          WHEN pr.price > 300000 AND pr.price <= 500000 THEN 0.25
19          ELSE 0.30
20        END) AS persentase_gross_laba
21      , (pr.price - (pr.price * ft.discount_percentage)) AS nett_sales
22      , ROUND(
23          ((pr.price - (pr.price * (ft.discount_percentage))) *
24          (CASE
25            WHEN pr.price <= 50000 THEN 0.10
26            WHEN pr.price > 50000 AND pr.price <= 100000 THEN 0.15
27            WHEN pr.price > 100000 AND pr.price <= 300000 THEN 0.20
28            WHEN pr.price > 300000 AND pr.price <= 500000 THEN 0.25
29            ELSE 0.30
30        END)), 2) AS nett_profit
31      , ft.rating AS rating_transaksi
32    FROM rakamin-kf-analytics-421907.kimia_farma.kf_final_transaction AS ft
33    LEFT JOIN rakamin-kf-analytics-421907.kimia_farma.kf_kantor_cabang AS kc
34    ON ft.branch_id = kc.branch_id
35    LEFT JOIN rakamin-kf-analytics-421907.kimia_farma.kf_product AS pr
36    ON ft.product_id = pr.product_id
37  )
```

4. Dashboard Performance Analytics

Thank You

Rakamin Academy X kimia farma