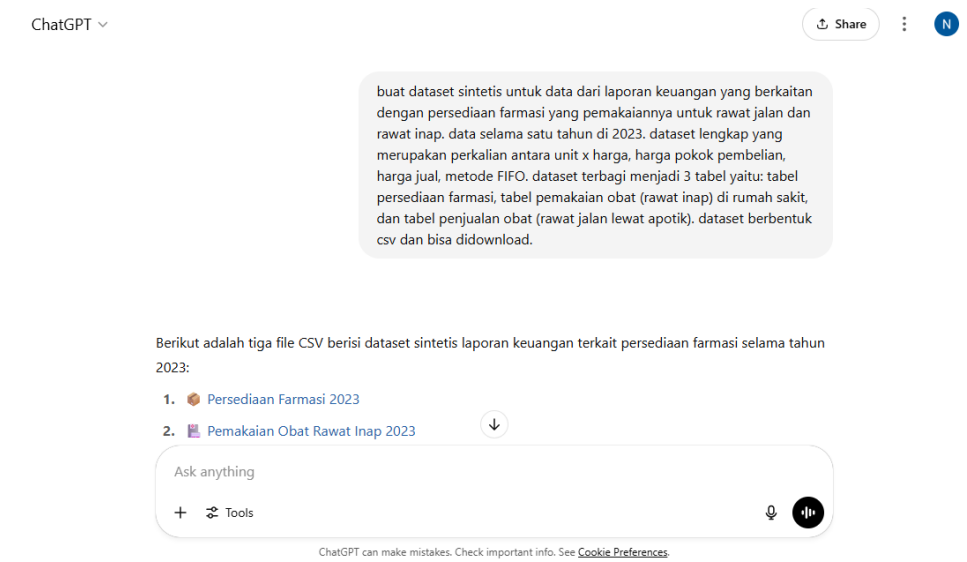


Nama : Nathania Dalta Fika

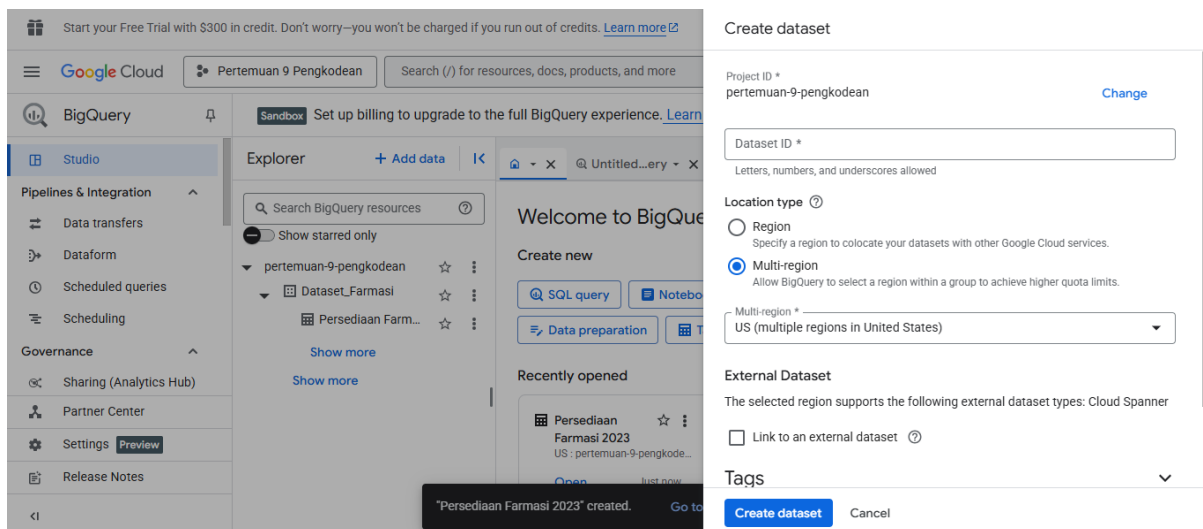
NIM : 12030123130188

Kelas : Pengkodean dan Pemrograman F

Prompt ChatGPT



Menggunakan Google BigQuery, Create Dataset



Create Table, lalu upload ketiga file csv yang telah diberikan ChatGPT

The screenshot shows the Google Cloud BigQuery Studio interface. A 'Create table' dialog is open, displaying a list of sources for creating a table. The 'Empty table' option is selected. Below the source list, the 'Table type' is set to 'Native table'. There is a checkbox for 'Create a BigQuery table for Apache Iceberg' which is currently unchecked. At the bottom of the dialog, there are 'Create table' and 'Cancel' buttons.

Buat prompt baru pada ChatGPT

The screenshot shows a ChatGPT chat interface. The user's prompt is: "buatkan data analitik menggunakan kueri sql berbasis google big query untuk ketiga tabel tersebut dalam dataset yang anda buat di atas". The assistant's response is: "Berikut adalah contoh kueri SQL analitik berbasis Google BigQuery untuk menganalisis tabel persediaan farmasi, pemakaian obat rawat inap, dan penjualan obat rawat jalan yang telah dibuat sebelumnya. Kueri ini mengasumsikan bahwa ketiga tabel telah diimpor ke dalam BigQuery dengan skema berikut:". Below the response, there is a section titled "Asumsi Nama Tabel di BigQuery" with two bullet points: "farmasi.persediaan_farmasi_2023" and "farmasi.pemakaian_obat_rawat_inap_2023". At the bottom of the chat interface, there is a text input field with the placeholder "Ask anything" and a "Tools" button.

Input query SQL ke dalam dataset dan visualisasi menggunakan Looker Studio

a. Total Pembelian, Pemakaian Rawat Inap, dan Penjualan Rawat Jalan per Obat

Looker Studio interface showing a SQL query and its results.

SQL Query:

```

1 SELECT
2   p.Drug,
3   SUM(p.Purchased_Units) AS total_purchased_units,
4   SUM(p.Total_Cost) AS total_purchase_cost,
5   COALESCE(SUM(i.Used_Units), 0) AS total_used_inpatient,
6   COALESCE(SUM(o.Sold_Units), 0) AS total_sold_outpatient
7 FROM
8   `Dataset_Farmasi.Persediaan Farmasi 2023` p
9 LEFT JOIN
10  `Dataset_Farmasi.Pemakaian Obat Rawat Inap` i
11 ON
12  p.Drug = i.Drug AND p.Date = i.Date
13 LEFT JOIN
14  `Dataset_Farmasi.Penjualan Obat Rawat Jalan 2023` o
15 ON
16  p.Drug = o.Drug AND p.Date = o.Date
17 GROUP BY
18  p.Drug
19 ORDER BY
20  p.Drug;

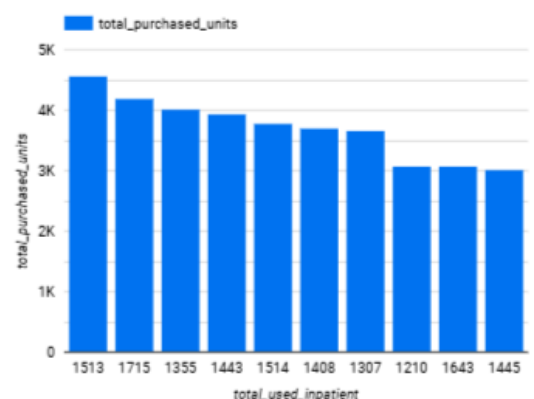
```

Query results table:

Row	Drug	total_purchased...	total_purchase_c...	total_used_inpati...	total_sold_outpat...
1	Amlodipine	3018	9642684.729999...	1445	2355
2	Amoxicillin	4573	44609508.8	1513	2278
3	Cetirizine	3087	6858901.059999...	1210	2253
4	Ciprofloxacin	3673	34328565.04	1307	2263
5	Ibuprofen	4191	29073739.56000...	1715	2184
6	Loperamide	3946	34347416.23	1443	1674
7	Metformin	3782	16666653.32999...	1514	1992
8	Omeprazole	3072	25380051.43	1643	2435
9	Paracetamol	3700	29939795.91	1408	2168
10	Simvastatin	4015	12803715.69000...	1355	2117

BigQuery Custom SQL

Drug	total_purchased_units
1. Amoxicillin	4,573
2. Ibuprofen	4,191
3. Simvastatin	4,015
4. Loperamide	3,946
5. Metformin	3,782
6. Paracetamol	3,700
7. Ciprofloxacin	3,673
8. Cetirizine	3,087
9. Omeprazole	3,072
10. Amlodipine	3,018



b. Estimasi Laba Kotor (Gross Profit) per Obat (berdasarkan FIFO dan harga jual)

```
1 SELECT
2   p.Drug,
3   SUM(o.Sold_Units) AS total_sold_units,
4   ANY_VALUE(p.Unit_Cost) AS estimated_unit_cost_fifo,
5   ANY_VALUE(p.Unit_Price) AS unit_price,
6   SUM(o.Sold_Units) * ANY_VALUE(p.Unit_Price) AS total_sales_value,
7   SUM(o.Sold_Units) * ANY_VALUE(p.Unit_Cost) AS estimated_cost_of_goods_sold,
8   (SUM(o.Sold_Units) * ANY_VALUE(p.Unit_Price)) -
9   (SUM(o.Sold_Units) * ANY_VALUE(p.Unit_Cost)) AS estimated_gross_profit
10  FROM
11   `Dataset_Farmasi.Penjualan Obat Rawat Jalan 2023` o
12  JOIN
13   `Dataset_Farmasi.Persediaan Farmasi 2023` p
14  ON
15   o.Drug = p.Drug AND o.Date = p.Date
16  GROUP BY
17   p.Drug
18  ORDER BY
19   estimated_gross_profit DESC;
20
```

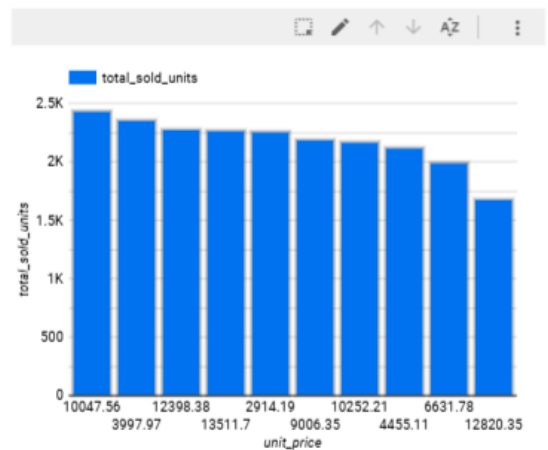
Query results

Job information							
Results							
Row	Drug	total_sold_units	estimated_unit_c...	unit_price	total_sales_value	estimated_cost_o...	estimated_gross_
1	Ciprofloxacin	2263	9326.56	13511.7	30576977.1	21106005.27999...	9470971.820000
2	Loperamide	1674	8750.51	12820.35	21461265.90000...	14648353.74	6812912.160000
3	Amoxicillin	2278	9879.39	12398.38	28243509.63999...	22505250.41999...	5738259.219999
4	Ibuprofen	2184	6759.35	9006.35	19669868.40000...	14762420.4	4907448.000000
5	Omeprazole	2435	8156.81	10047.56	24465808.59999...	19861832.35	4603976.249999
6	Paracetamol	2168	8249.48	10252.21	22226791.27999...	17884872.64	4341918.639999
7	Metformin	1992	4562.29	6631.78	13210505.76	9088081.68	4122424.0
8	Simvastatin	2117	3137.07	4455.11	9431467.87	6641177.19	2790290.679999
9	Amlodipine	2355	3203.14	3997.97	9415219.35	7543394.699999...	1871824.650000
10	Cetirizine	2253	2246.96	2914.19	6565670.07	5062400.88	1503269.190000

Estimasi Laba Kotor

Drug		total_sold_units
1.	Omeprazole	2,435
2.	Amlodipine	2,355
3.	Amoxicillin	2,278
4.	Ciprofloxacin	2,263
5.	Cetirizine	2,253
6.	Ibuprofen	2,184
7.	Paracetamol	2,168
8.	Simvastatin	2,117
9.	Metformin	1,992
10.	Loperamide	1,674

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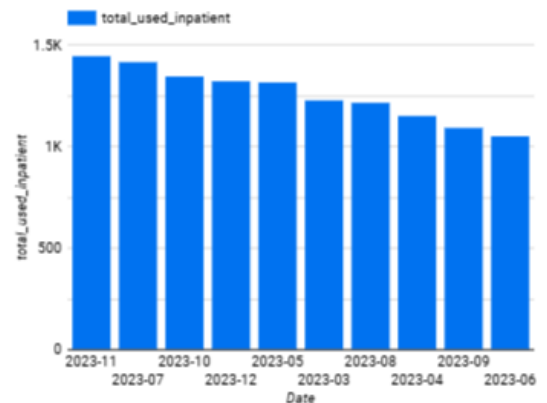
c. Analisis Tren Pemakaian Obat Rawat Inap per Bulan

Analisis Tren P...				
Run Save query (Classic) Share Schedule Open in More				
<pre>1 SELECT 2 Date, 3 Drug, 4 SUM(Used_Units) AS total_used_inpatient 5 FROM 6 `Dataset_Farmasi.Pemakaian Obat Rawat Inap` 7 GROUP BY 8 Date, Drug 9 ORDER BY 10 Date, Drug;</pre>				
Job information Results Chart JSON Execution details Execution graph Expand				
Row	Date	Drug	total_used_inpati...	
1	2023-01	Amlodipine	76	
2	2023-01	Amoxicillin	87	
3	2023-01	Cetirizine	79	
4	2023-01	Ciprofloxacin	76	
5	2023-01	Ibuprofen	158	
6	2023-01	Loperamide	146	
7	2023-01	Metformin	57	
8	2023-01	Omeprazole	100	
9	2023-01	Paracetamol	71	
10	2023-01	Simvastatin	70	
11	2023-02	Amlodipine	84	
12	2023-02	Amoxicillin	160	

Tren Pemakaian Obat

	Date	total_used_inpatient
1.	2023-11	1,447
2.	2023-07	1,416
3.	2023-10	1,348
4.	2023-12	1,323
5.	2023-05	1,319
6.	2023-03	1,230
7.	2023-08	1,215
8.	2023-04	1,151
9.	2023-09	1,097
10.	2023-06	1,051
11.	2023-02	1,036

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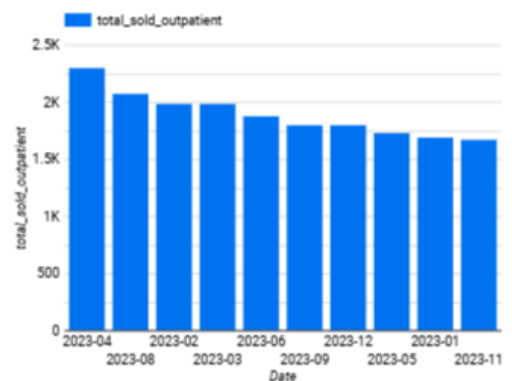
d. Analisis Penjualan Obat Rawat Jalan per Bulan

<div>Analisis Penju...<div>RunSave query (Classic)ShareScheduleOpen inMore</div></div>				
<pre>1 SELECT 2 Date, 3 Drug, 4 SUM(Sold_Units) AS total_sold_outpatient 5 FROM 6 `Dataset_Farmasi.Penjualan Obat Rawat Jalan 2023` 7 GROUP BY 8 Date, Drug 9 ORDER BY 10 Date, Drug;</pre>				
<div>Job informationResultsChartJSONExecution detailsExecution graphExpand</div>				
Row	Date	Drug	total_sold_outpat...	
1	2023-01	Amlodipine	286	
2	2023-01	Amoxicillin	175	
3	2023-01	Cetirizine	178	
4	2023-01	Ciprofloxacin	281	
5	2023-01	Ibuprofen	167	
6	2023-01	Loperamide	65	
7	2023-01	Metformin	138	
8	2023-01	Omeprazole	97	
9	2023-01	Paracetamol	145	
10	2023-01	Simvastatin	166	
11	2023-02	Amlodipine	142	
12	2023-02	Amoxicillin	280	

Penjualan Obat

	Date	total_sold_outpatient
1.	2023-04	2,307
2.	2023-08	2,083
3.	2023-02	1,995
4.	2023-03	1,991
5.	2023-06	1,887
6.	2023-09	1,801
7.	2023-12	1,800
8.	2023-05	1,737
9.	2023-01	1,698
10.	2023-11	1,675
11.	2023-07	1,451

1 - 12 / 12 < >



e. Estimasi Sisa Stok Akhir Tahun (berdasarkan pembelian - pemakaian - penjualan)

Estimasi Sisa ...

RunSave query (Classic)ShareScheduleOpen inMore

```
1 WITH total_in AS (  
2   SELECT Drug, SUM(Purchased_Units) AS total_purchased  
3   FROM 'Dataset_Farmasi.Persediaan Farmasi 2023'  
4   GROUP BY Drug  
5 ),  
6 total_used AS (  
7   SELECT Drug, SUM(Used_Units) AS total_used  
8   FROM 'Dataset_Farmasi.Pemakaian Obat Rawat Inap'  
9   GROUP BY Drug  
10 ),  
11 total_sold AS (  
12   SELECT Drug, SUM(Sold_Units) AS total_sold  
13   FROM 'Dataset_Farmasi.Penjualan Obat Rawat Jalan 2023'  
14   GROUP BY Drug  
15 )  
16 SELECT  
17   i.Drug,  
18   i.total_purchased,  
19   COALESCE(u.total_used, 0) AS total_used,  
20   COALESCE(s.total_sold, 0) AS total_sold,  
21   i.total_purchased - COALESCE(u.total_used, 0) - COALESCE(s.total_sold, 0) AS estimated_ending_stock  
22 FROM  
23   total_in i
```

Query results

Save resultsOpen in

Job informationResultsChartJSONExecution detailsExecution graph

Row	Drug	total_purchased	total_used	total_sold	estimated_endin...
1	Omeprazole	3072	1643	2435	-1006
2	Amlodipine	3018	1445	2355	-782
3	Cetirizine	3087	1210	2253	-376
4	Ciprofloxacin	3673	1307	2263	103
5	Paracetamol	3700	1408	2168	124
6	Metformin	3782	1514	1992	276
7	Ibuprofen	4191	1715	2184	292
8	Simvastatin	4015	1355	2117	543
9	Amoxicillin	4573	1513	2278	782
10	Loperamide	3946	1443	1674	829

Estimasi Stok Akhir Tahun

Drug		total_purchased
1.	Amoxicillin	4,573
2.	Ibuprofen	4,191
3.	Simvastatin	4,015
4.	Loperamide	3,946
5.	Metformin	3,782
6.	Paracetamol	3,700
7.	Ciprofloxacin	3,673
8.	Cetirizine	3,087
9.	Omeprazole	3,072
10.	Amlodipine	3,018

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