

Business Intelligence Analyst : Sales Dashboard

Project Based Virtual Internship Program

Presented by
Yesi Yuliantika




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A recent graduate in Chemical Engineering, who is interested in data analytics and data visualizations. I am familiar with database management systems, and highly motivated in the field of Business Analyst.

Experiences

-  **Project Based Internship : BI Analyst**
PT. Bank Muamalat x Rakamin Academy
June 2024 - Present
-  **Database Administrator Intern**
PT. Bank Rakyat Indonesia
February - May 2024
-  **Production Intern**
PT. Industri Nabati Lestari
October - December 2021

Education

-  **Bachelor of Engineering**
Universitas Sumatera Utara
June 2018 - June 2023

Case Study: Sales Dashboard at PT Sejahtera Bersama

Soal 1 : Tentukan primary key pada 4 dataset penjualan

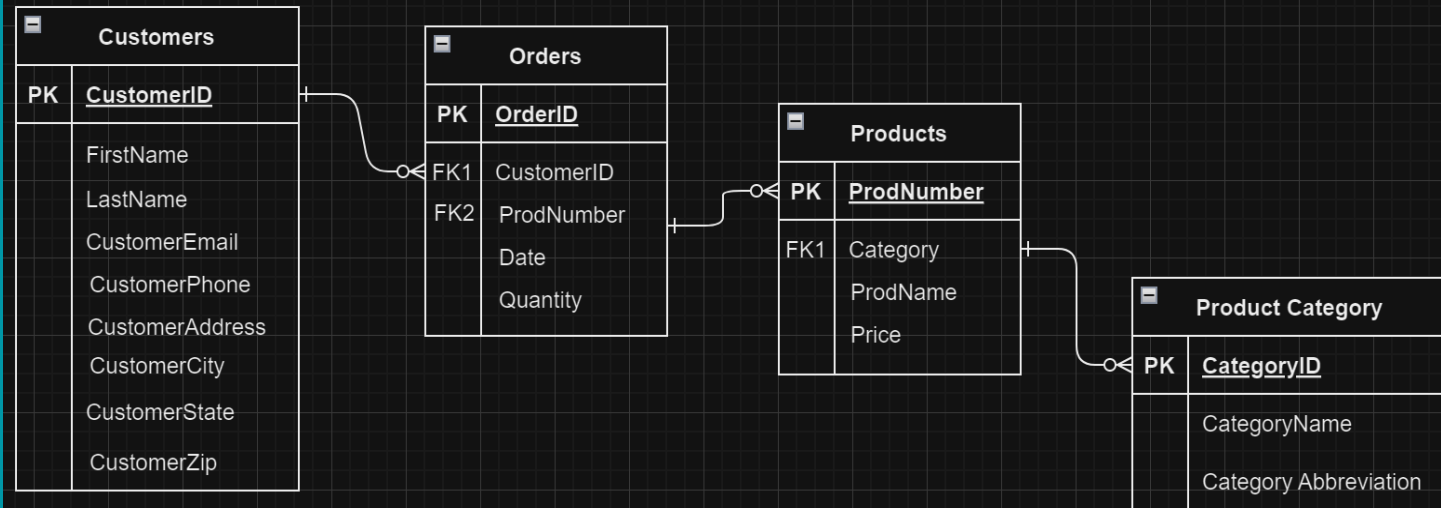
1. Primary key tabel Customers : CustomerID
2. Primary key tabel Products : ProdNumber
3. Primary key tabel Orders : OrderID
4. Primary key tabel Product Category : CategoryID

| Table Name | Primary Key | Foreign Key |
|------------------|-------------|---------------------------|
| Customers | CustomerID | |
| Orders | OrderID | CustomerID and ProdNumber |
| Product | ProdNumber | Category |
| Product Category | CategoryID | |

Case Study: Sales Dashboard

Soal 2 : Tentukan relationship dari ke-4 table tersebut

Tool :  draw.io



Case Study: Sales Dashboard

Soal 3 : Sebagai BI Analyst PT Sejahtera Bersama, kita akan membuat sebuah table master yang berisikan informasi :

- CustomerEmail (cust_email)
- CustomerCity (cust_city)
- OrderDate (order_date)
- OrderQty (order_qty)
- ProductName (product_name)
- ProductPrice (product_price)
- ProductCategoryName (category_name)
- TotalSales (total_sales)

Case Study: Sales Dashboard

Tool :  Google Big Query

Menarik data

Data Integration

Mengurutkan

```
1  -- Combine transaction table
2  SELECT
3      Date AS order_date,
4      CategoryName AS category_name,
5      ProdName AS product_name,
6      Price AS product_price,
7      Quantity AS order_quantity,
8      (Quantity * Price) AS total_sales,
9      CustomerEmail AS customer_email,
10     CustomerCity AS customer_city
11  FROM
12     `pbi2024.Product Category` AS t1
13     INNER JOIN `pbi2024.Products` AS t2 ON t1.CategoryID = t2.Category
14     INNER JOIN `pbi2024.Orders` AS t3 ON t2.ProdNumber = t3.ProdNumber
15     INNER JOIN `pbi2024.Customers` AS t4 ON t3.CustomerID = t4.CustomerID
16  ORDER BY Date ASC
```

Case Study: Sales Dashboard

Query results

SAVE RESULTS

EXPLORE DATA



JOB INFORMATION

RESULTS

CHART

JSON

EXECUTION DETAILS

EXECUTION GRAPH

| Row | order_date | category_name | product_name | product_price | order_quantity | total_sales | customer_email | customer_city |
|-----|------------|-----------------|--------------------------|---------------|----------------|-------------|---|------------------|
| 1 | 2020-01-01 | Drone Kits | BYOD-220 | 69.0 | 1 | 69.0 | edew@nba.com#mailto:edew... | Honolulu |
| 2 | 2020-01-01 | eBooks | Polar Robots | 23.99 | 2 | 47.98 | fvaslerqt@comsenz.com#mailt... | Jackson |
| 3 | 2020-01-01 | eBooks | SCARA Robots | 19.5 | 5 | 97.5 | llespercx@com.com#mailto:lle... | Des Moines |
| 4 | 2020-01-01 | eBooks | Spherical Robots | 16.75 | 5 | 83.75 | lfromonte9@de.vu#mailto:lfro... | Birmingham |
| 5 | 2020-01-01 | Robots | RWW-75 Robot | 883.0 | 3 | 2649.0 | tmckernot@tinyurl.com#mailto... | Katy |
| 6 | 2020-01-01 | Training Videos | Drone Video Techniques | 37.99 | 6 | 227.94 | gstiggersdd@eventbrite.com#mailto:gstiggersdd@eventbrite.com# | Saint Petersburg |
| 7 | 2020-01-02 | Blueprints | Ladybug Robot Blueprint | 12.0 | 2 | 24.0 | akingaby78@deviantart.com#... | West Palm Beach |
| 8 | 2020-01-02 | Drone Kits | BYOD-100 | 54.0 | 5 | 270.0 | jzellick84@ustream.tv#mailto:j... | Washington |
| 9 | 2020-01-02 | Drones | DTE-QFN20 Drone | 250.0 | 2 | 500.0 | jcolthurstgu@cbsnews.com#m... | Sacramento |
| 10 | 2020-01-02 | eBooks | Fixed Wing Drones | 15.5 | 3 | 46.5 | ohalbardv@booking.com#mail... | Birmingham |
| 11 | 2020-01-02 | Robot Kits | BYOR-2640S | 189.0 | 2 | 378.0 | aguiongo@behance.net#mailt... | Houston |
| 12 | 2020-01-02 | Robot Kits | BYOR-2640S | 189.0 | 2 | 378.0 | gmirrlees4v@state.tx.us#mailt... | Washington |
| 13 | 2020-01-02 | Robot Kits | BYOR-3000 | 214.0 | 2 | 428.0 | croylede@dot.gov#mailto:croyl... | Virginia Beach |
| 14 | 2020-01-02 | Training Videos | Drone Video Techniques | 37.99 | 2 | 75.98 | lgatenbyel@quantcast.com#m... | Des Moines |
| 15 | 2020-01-02 | Training Videos | Understanding Automation | 44.95 | 1 | 44.95 | ksteershp@ameblo.jp#mailto:k... | San Diego |
| 16 | 2020-01-03 | Drone Kits | BYOD-350 | 89.95 | 3 | 269.85 | bbockhc0@jimdo.com#mailto:... | Torrance |

Results per page: 50

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Case Study: Sales Dashboard

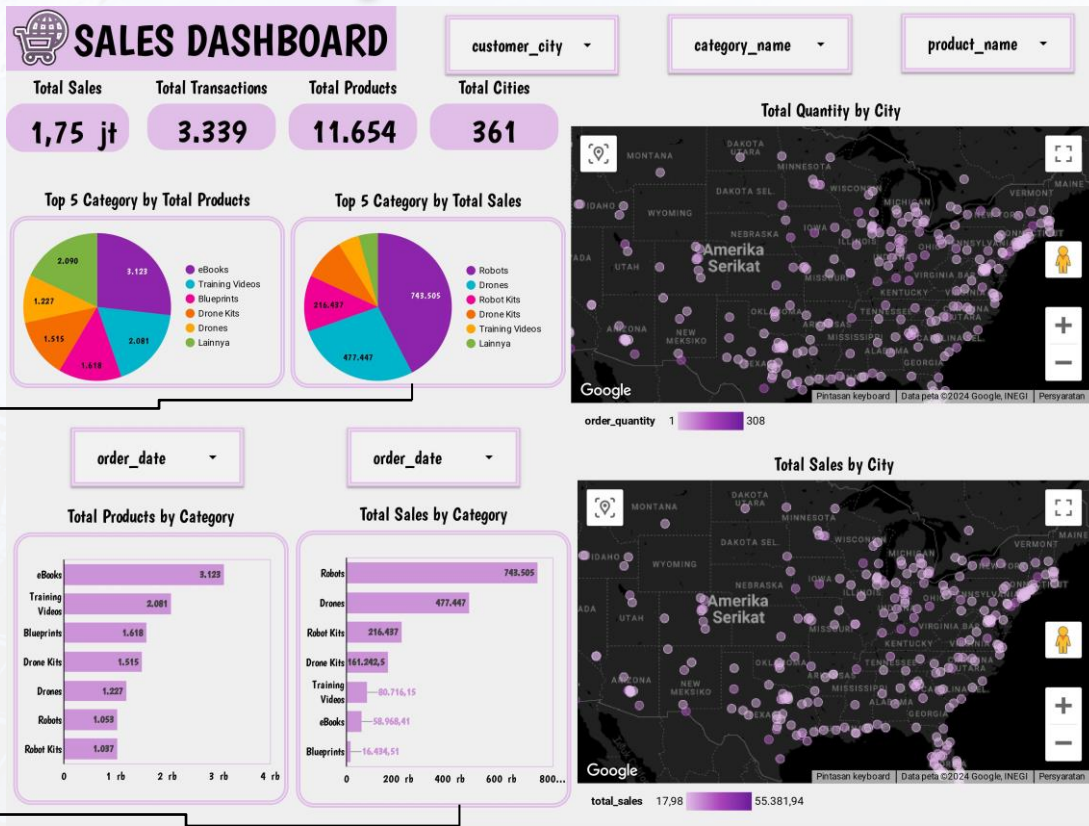
Soal 4 : Buatlah visualisasi yang menampilkan data penjualan

Visualisasi tersebut harus berisi minimal :

- Total keseluruhan sales
- Total keseluruhan sales berdasarkan kategori produk
- Total keseluruhan qty berdasarkan kategori produk
- Total sales berdasarkan kota
- Total qty berdasarkan kota
- Top 5 kategori produk yang paling tinggi salesnya
- Top 5 kategori produk yang paling tinggi qtynya

Case Study: Sales Dashboard

Tool : Looker Studio



Total keseluruhan sales

Top 5 kategori produk yang paling tinggi qtynya

Top 5 kategori produk yang paling tinggi salesnya

Total qty berdasarkan kota

Total sales berdasarkan kota

Total keseluruhan qty berdasarkan kategori produk

Total keseluruhan sales berdasarkan kategori produk

Case Study: Sales Dashboard

Soal 5 : Sebagai BI analyst PT Sejahtera Bersama, apa yang bisa anda usulkan untuk mempertahankan penjualan ataupun menaikkan penjualan dengan tabel transaksi detail yang sudah ada?

Saran berdasarkan table transaksi yang telah divisualisasikan:

- 1) Membuat bundling produk yang memiliki penjualan tertinggi dengan penjualan terendah, Contoh : eBooks + Robot Kits (by Category), Robots + Blueprints (by Sales), agar dapat mengenal dan membeli produk.
- 2) Membuat promo menarik di hari-hari tertentu.
- 3) Memperluas target pasar di daerah yang memiliki nilai pembelian terendah, offline market dan online market dengan memberikan promo, baik itu promo produk maupun gratis ongkir (Online).
- 4) Diperlukan segmentasi customers (gender) untuk mempermudah pengelolaan pelanggan terhadap kebutuhan pelanggan agar melihat peluang transaksi.

Link Result Here

Link Gdrive : <https://drive.google.com/drive/folders/1geeWpvraqsYl36PqjTA1dgjWpyQnImBq>

Link Looker Studio : <https://lookerstudio.google.com/s/kLK7NhUeyLw>

Link Github Here

<https://github.com/YesiYuliantika/Project-Based-Virtual-Intern>

Video Presentation Here

<https://drive.google.com/file/d/1g7qMYwRb33QZtig9lOtjY-NJq2YgeHgf/view?usp=sharing>

Thank You



Rakamin
Academy



Bank
Muamalat