

# Digital Churn User Dashboard

**Bank Muamalat BI Analyst Virtual Internship  
Program**

Presented by  
Fabiyan Rahadi



# Fabiyan Rahadi

## About You

Hello,  
I'm a Graduated at Padjadjaran University, majoring in Mathematics. I have interest in Statistics, Data, and Business Intelligence.

## Insert Your Experience

- Project-Based Virtual Intern: Big Data Analytics Kimia Farma x Rakamin Academy  
PT. Kimia Farma, Tbk  
Mar 2024 - April 2024
- Teaching Assistant  
Kumon  
February 2023 - now
- Centralized Data Processing Staff  
BFI Finance  
July 2022 - October 2022

# Case Study

# Challenge

Saya adalah seorang BI Analyst PT Sejahtera Bersama, saya mendapat challenge berupa

- Menentukan masing - masing Primary Key pada 4 Database Penjualan
- Menentukan Relationship dari 4 Tabel Tersebut
- Membuat Table Master
- Membuat Visualisasi Data Penjualan
- Rekomendasi



# Tools

- Google BigQuery
- Looker Studio



**Google**  
Big Query



**Looker Studio**

# Results

# Primary Key

- Primary Key dari Customers adalah **CustomerID**
- Primary Key dari Orders adalah **OrderID**
- Primary Key dari ProductCategory adalah **CategoryID**
- Primary Key dari Products adalah **ProdNumber**

# Query Customers

# Menentukan Primary Key Table

Customer

```
SELECT CustomerID,
```

```
COUNT(CustomerID)
```

```
as Total_Cust
```

```
from `bi_analyst.customers`
```

```
GROUP BY 1
```

```
order by 1 desc
```

```
Limit 5;
```

Row	CustomerID	Total_Cust
1	2123	1
2	2122	1
3	2121	1
4	2120	1
5	2119	1



# Query Orders

# Menentukan Primary Key Table

Order

```
SELECT OrderID, COUNT(OrderID) as  
TotalOrders FROM  
`bi_analyst.order`  
GROUP BY 1  
ORDER BY 2 DESC  
LIMIT 5;
```

Row	OrderID	TotalOrders
1	1098	1
2	1758	1
3	404	1
4	1320	1
5	575	1

# Query ProdNumber

# Menentukan Primary Key Table

Product

```
SELECT ProdNumber, COUNT(*) AS  
Total_Products from  
`bi_analyst.products`  
GROUP BY ProdNumber  
LIMIT 5;
```

Row	ProdNumber	Total_Products
1	BP101	1
2	BP102	1
3	BP104	1
4	BP105	1
5	BP106	1

# Query ProductCategory

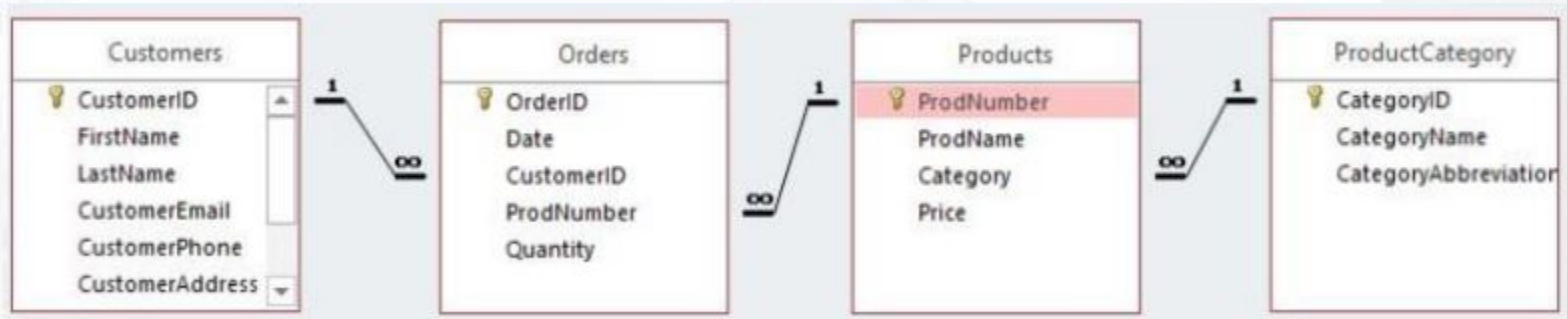
# Menentukan Primary Key Table

product\_category

```
SELECT CategoryID,  
COUNT(CategoryID) as  
Total_Category FROM  
`bi_analyst.product_category`  
GROUP BY 1  
ORDER BY 2 DESC  
LIMIT 5;
```

Row	CategoryID	Total_Category
1	4	1
2	1	1
3	2	1
4	5	1
5	3	1

# Entity Relationship Diagram



Hubungan antar tabel adalah sebagai berikut:

- Tabel Customers memiliki hubungan **One to Many** dengan tabel Orders
- Tabel Products memiliki hubungan **One to Many** dengan tabel Orders
- Tabel ProductCategory memiliki hubungan **One to Many** dengan tabel Products



# Query Table Master

```
SELECT
o.Date as order_date,
pc.CategoryName as category_name,
p.ProdName as product_name,
o.Quantity as order_qty,
p.Price as product_price,
p.Price*o.Quantity as total_sales,
c.CustomerEmail as cust_email,
c.CustomerCity as cust_city
from `bi_analyst.customers` c
join `bi_analyst.order` o on c.CustomerID = o.CustomerID
join `bi_analyst.products` p on o.ProdNumber = p.ProdNumber
join `bi_analyst.product_category` pc on p.Category = pc.CategoryID
ORDER BY o.Date ASC
```

order_date ▼	category_name ▼	product_name ▼	order_qty ▼	product_price ▼	total_sales ▼	cust_email ▼	cust_city ▼
2020-01-01	eBooks	SCARA Robots	5	19.5	97.5	llespercx@com.com#mailto:lle...	Des Moines
2020-01-01	Robots	RWW-75 Robot	3	883.0	2649.0	tmckernot@tinyurl.com#mailto...	Katy
2020-01-01	Drone Kits	BYOD-220	1	69.0	69.0	edew@nba.com#mailto:edew...	Honolulu
2020-01-01	eBooks	Spherical Robots	5	16.75	83.75	lfromonte9@de.vu#mailto:lfrom...	Birmingham
2020-01-01	Training Videos	Drone Video Techniques	6	37.99	227.94	gstiggersdd@eventbrite.com#mailto:gstiggersdd@eventbrit	Saint Petersburg

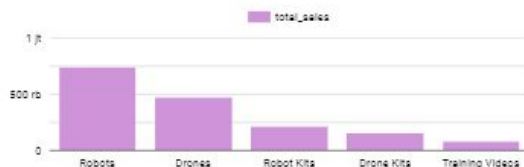
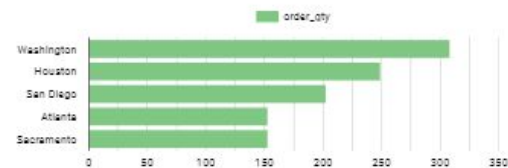
# Dashboard Sales

## SALES DASHBOARD

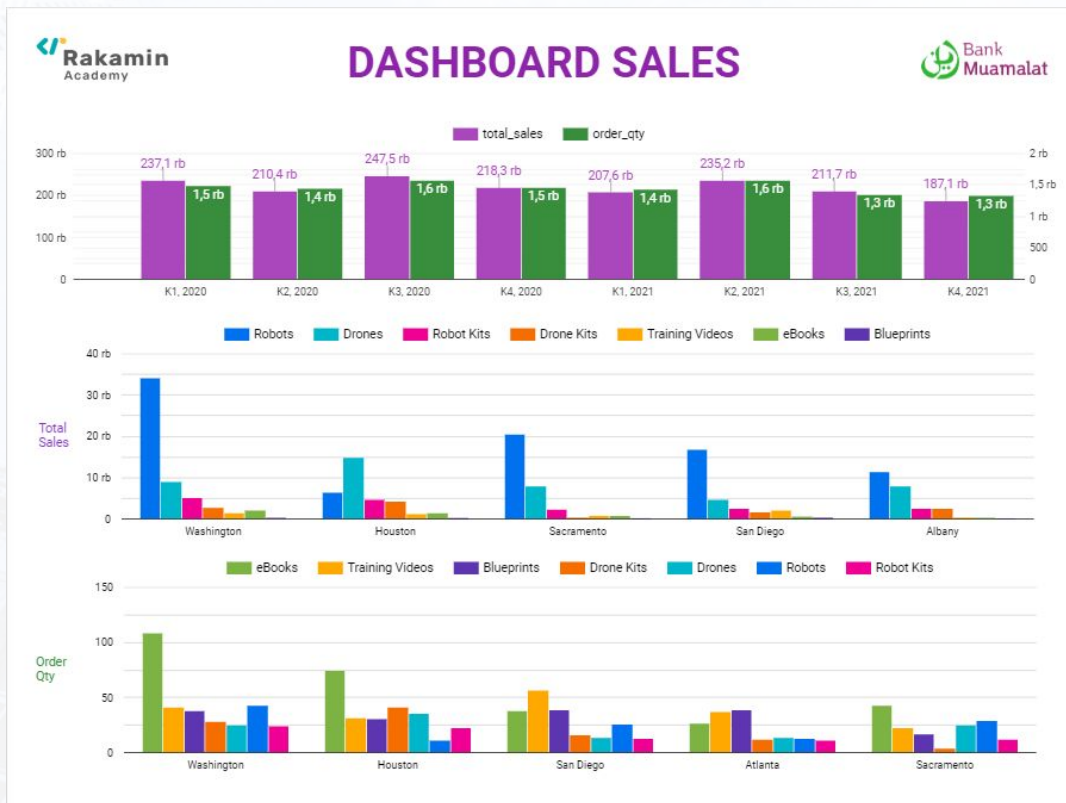
Total Orders  
3,3 rb

Total Quantity Sales  
11,7 rb

Total Sales  
1,8 jt



# Dashboard Sales



# Rekomendasi

- **Menaikkan Harga Ebook dan Training** : Meskipun kategori Ebook dan Training memiliki jumlah order yang tinggi, kontribusinya terhadap total sales masih kurang signifikan.
- **Maintain Penjualan Robots dan Drones** : Kategori Robots dan Drones menunjukkan performa yang baik dengan jumlah sales yang tinggi.
- **Antisipasi Penurunan Sales pada Q4** : Terdapat pola penurunan penjualan di kuartal keempat setiap tahunnya. Untuk mengatasi hal ini, strategi seperti kampanye promosi atau pemberian harga khusus selama Q4 dapat dilakukan untuk meminimalisir penurunan dan memtivasi pembelian di akhir tahun



# Link

[GitHub](#)

[Looker Studio](#)

# Thank You



**Rakamin**  
Academy



**Bank**  
**Muamalat**