

# Final Submission

Bank Muamalat Business Intelligence Analyst

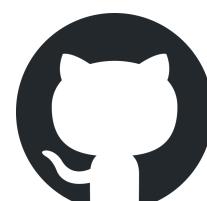
Presented by  
Adjie Arrayan Surya Putra



# Adjie Arrayan Surya Putra

## About You

Seorang Mahasiswa Sistem Informasi dari  
Universitas Singaperbangsa Karawang.  
Tertarik dan bersemangat akan tiap hal  
baru yang dipelajari



<https://github.com/AdjieArrayan>

# Link

## **Github**

<https://github.com/AdjieArrayan/Bank-Muamalat-Business-Intelligence-Analyst>

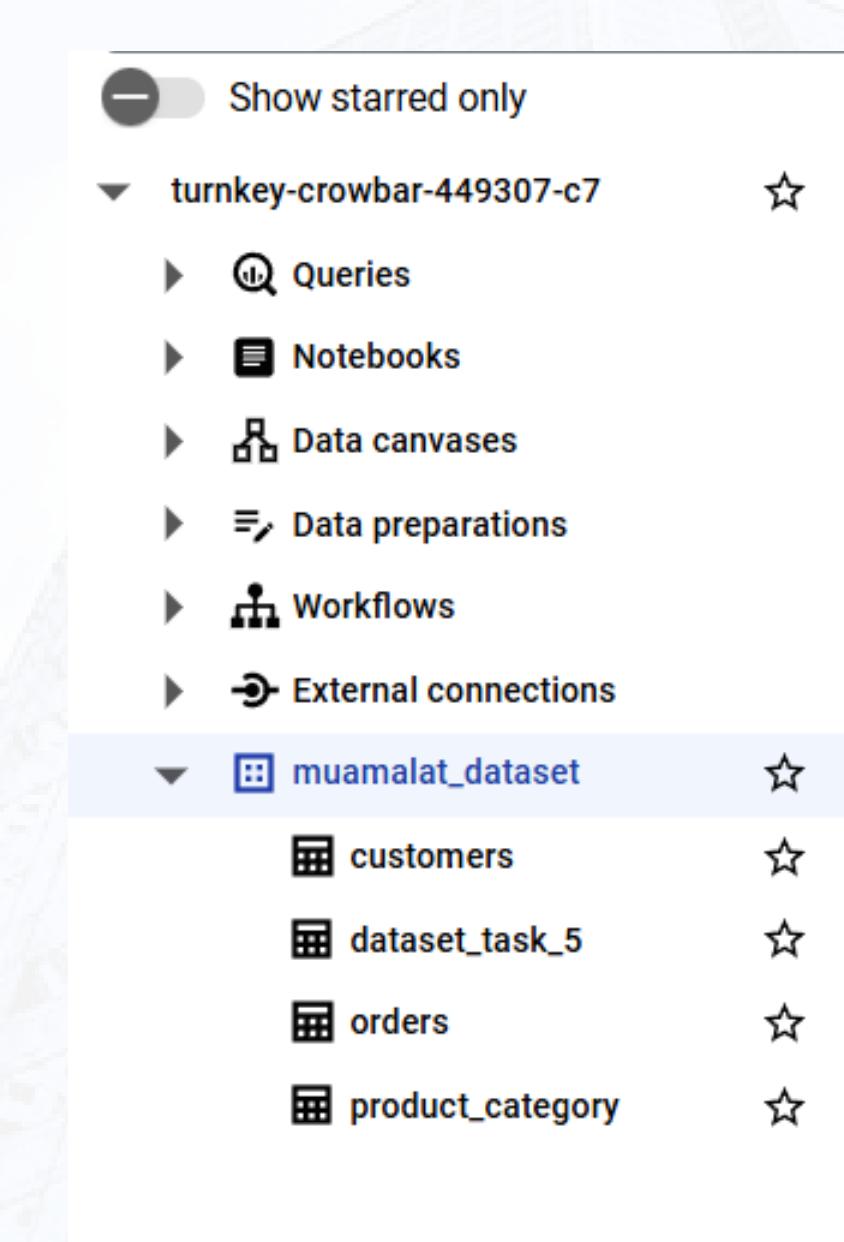
## **Dashboard Looker Studio**

<https://lookerstudio.google.com/reporting/461a08c3-1c24-42d4-8599-a35384909a4f/page/JMZiE>

# Case Study

PT Sejahtera Bersama ingin meningkatkan strategi bisnisnya dengan menganalisis performa penjualan menggunakan pendekatan berbasis data. Sebagai BI Analyst, tugas utama saya adalah mengolah data penjualan mentah menjadi wawasan yang berguna untuk pengambilan keputusan.

# Preparation



The screenshot shows a user interface for managing datasets. At the top, there is a toggle switch labeled "Show starred only". Below it, two main dataset entries are listed: "turnkey-crowbar-449307-c7" and "muamalat\_dataset". Each dataset entry has a star icon and a more options icon (three dots). Under "turnkey-crowbar-449307-c7", there are five categories: "Queries", "Notebooks", "Data canvases", "Data preparations", and "Workflows", each with its own star and more options icons. Under "muamalat\_dataset", there are four tables: "customers", "dataset\_task\_5", "orders", and "product\_category", each with its own star and more options icons.

- Show starred only
- ▼ turnkey-crowbar-449307-c7 ☆ ⋮
  - ▶  Queries ⋮
  - ▶  Notebooks ⋮
  - ▶  Data canvases ⋮
  - ▶  Data preparations ⋮
  - ▶  Workflows ⋮
  - ▶  External connections ⋮
- ▼ muamalat\_dataset ☆ ⋮
  -  customers ☆ ⋮
  -  dataset\_task\_5 ☆ ⋮
  -  orders ☆ ⋮
  -  product\_category ☆ ⋮

# Nomer 1

- Tugas Tentukan masing-masing primary key pada 4 dataset penjualan
  - Primary key tabel Customer :
  - Primary key tabel Products :
  - Primary key tabel Orders :
  - Primary key tabel ProductCategory :
- Data yang digunakan
  - <https://drive.google.com/file/d/1RwsBQ1FriNfz6qiq0V5nD7gF7j081To3/view?usp=sharing>

# Result

## Primary Key untuk tabel Customers

Untitled query

**RUN** **SAVE**

```
1 SELECT CustomerID, COUNT(*) AS jumlah
2 FROM `muamalat_dataset.customers`
3 GROUP BY CustomerID
4 HAVING COUNT(*) > 1;
```

Query results

JOB INFORMATION **RESULTS** CHART

**!** There is no data to display.

## Primary Key untuk tabel dataset\_task\_5 (Product)

Untitled query

**RUN** **SHARE**

```
1 SELECT ProdNumber, COUNT(*) AS jumlah
2 FROM `muamalat_dataset.dataset_task_5`
3 GROUP BY ProdNumber
4 HAVING COUNT(*) > 1;
```

Query results

JOB INFORMATION **RESULTS** CHART

**!** There is no data to display.

## Primary Key untuk tabel Orders

Untitled query

**RUN** **SHARE**

```
1 SELECT OrderID, COUNT(*) AS jumlah
2 FROM `muamalat_dataset.orders`
3 GROUP BY OrderID
4 HAVING COUNT(*) > 1;
```

Query results

JOB INFORMATION **RESULTS** CHART

**!** There is no data to display.

## Primary Key untuk tabel Product\_Category

Untitled query

**RUN** **SHARE**

```
1 SELECT CategoryID, COUNT(*) AS jumlah
2 FROM `muamalat_dataset.product_category`
3 GROUP BY CategoryID
4 HAVING COUNT(*) > 1;
```

Query results

JOB INFORMATION **RESULTS** CHART

**!** There is no data to display.

# Nomer 2

- Tugas Tentukan masing-masing primary key pada 4 dataset penjualan
  - Tentukan relationship dari ke-4 table tersebut
- Data yang digunakan
  - <https://drive.google.com/file/d/1RwsBQ1FriNfz6qiq0V5nD7gF7j081To3/view?usp=sharing>

# Result

## Relasi Tabel Customers dengan Orders

Untitled query

RUN SAVE DOWNLOAD SHARE This query will process 68.76 KB wh...

```
1 SELECT c.CustomerID, COUNT(o.OrderID) AS total_orders
2 FROM muamalat_dataset.customers c
3 LEFT JOIN muamalat_dataset.orders o ON c.CustomerID = o.CustomerID
4 GROUP BY c.CustomerID
5 ORDER BY total_orders DESC;
```

Press Alt+F1 for Accessibility Options.

Query results

SAVE RESULTS OPEN IN

JOB INFORMATION	RESULTS	CHART	JSON	EXECUTION DETAILS	EXECUTION GRAPH
Row	CustomerID	total_orders			
1	1851	7			
2	628	6			
3	614	6			
4	1549	6			
5	496	6			
6	1016	6			
7	1202	6			
8	198	6			
9	866	6			
10	422	5			

# Result

## Relasi Tabel Orders dengan Dataset\_Task\_5

Untitled query

**RUN** **SAVE** **DOWNLOAD** **SHARE**

```
1 SELECT c.CategoryID, COUNT(p.ProdNumber) AS total_products
2 FROM muamalat_dataset.product_category c
3 LEFT JOIN muamalat_dataset.dataset_task_5 p ON c.CategoryID = p.Category
4 GROUP BY c.CategoryID
5 ORDER BY total_products DESC;
6 |
```

Query results

**SAVE**

JOB INFORMATION		RESULTS	CHART	JSON	EXECUTION DETAILS
Row	CategoryID	total_products			
1	4	19			
2	7	13			
3	1	10			
4	2	9			
5	3	7			
6	5	6			
7	6	6			

## Relasi Tabel Dataset\_Task\_5 dengan Product\_Category

Untitled query

**RUN** **SAVE** **DOWNLOAD** **SHARE**

```
1 SELECT p.ProdNumber, COUNT(o.OrderID) AS total_orders
2 FROM muamalat_dataset.dataset_task_5 p
3 LEFT JOIN muamalat_dataset.orders o ON p.ProdNumber = o.ProdNumber
4 GROUP BY p.ProdNumber
5 ORDER BY total_orders DESC;
```

Query results

**RESULTS**

ProdNumber	total_orders
BP110	89
TV802	64
DS305	63
DK208	61
RS703	59
EB503	59
TV804	59
RK605	58

Load more

Results per page:

# Nomer 3

- Tugas 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)

Urutkan data tersebut berdasarkan tanggal transaksi yang paling awal sampai yang paling akhir. Posisi kolom mengikuti contoh berikut ini :

Row #	order_date	category_name	product_name	product_price	order_qty	total_sales	cust_email	cust_city
1	2020-01-01	Drone Kits	BYOD-220	69.0	1	69.0	edew@nba.co...	Honolulu
2	2020-01-01	eBooks	Polar Robots	23.99	2	47.98	fvaslerqt@co...	Jackson
3	2020-01-01	Robots	RWW-75 Robot	883.0	3	2649.0	tmckernot@ti...	Katy

- Data yang digunakan :
  - <https://drive.google.com/file/d/1RwsBQ1FriNfz6qiq0V5nD7gF7j081To3/view?usp=sharing>

# Result

product... ory X orders X dataset\_t\_k\_5 X Untitled query + -

Untitled query RUN OPEN IN MORE SAVE DOWNLOAD SHARE SCHEDULE Query

```
1 SELECT
2   c.CustomerEmail AS cust_email,
3   c.CustomerCity AS cust_city,
4   o.Date AS order_date,
5   o.Quantity AS order_qty,
6   p.ProdName AS product_name,
7   p.Price AS product_price,
8   pc.CategoryName AS category_name,
9   (p.Price * o.Quantity) AS total_sales
10  FROM muamalat_dataset.orders o
11  JOIN muamalat_dataset.customers c ON o.CustomerID = c.CustomerID
12  JOIN muamalat_dataset.dataset_task_5 p ON o.ProdNumber = p.ProdNumber
13  JOIN muamalat_dataset.product_category pc ON p.Category = pc.CategoryID
14  ORDER BY o.Date ASC;
```

Press Alt+F1 for Accessible Text

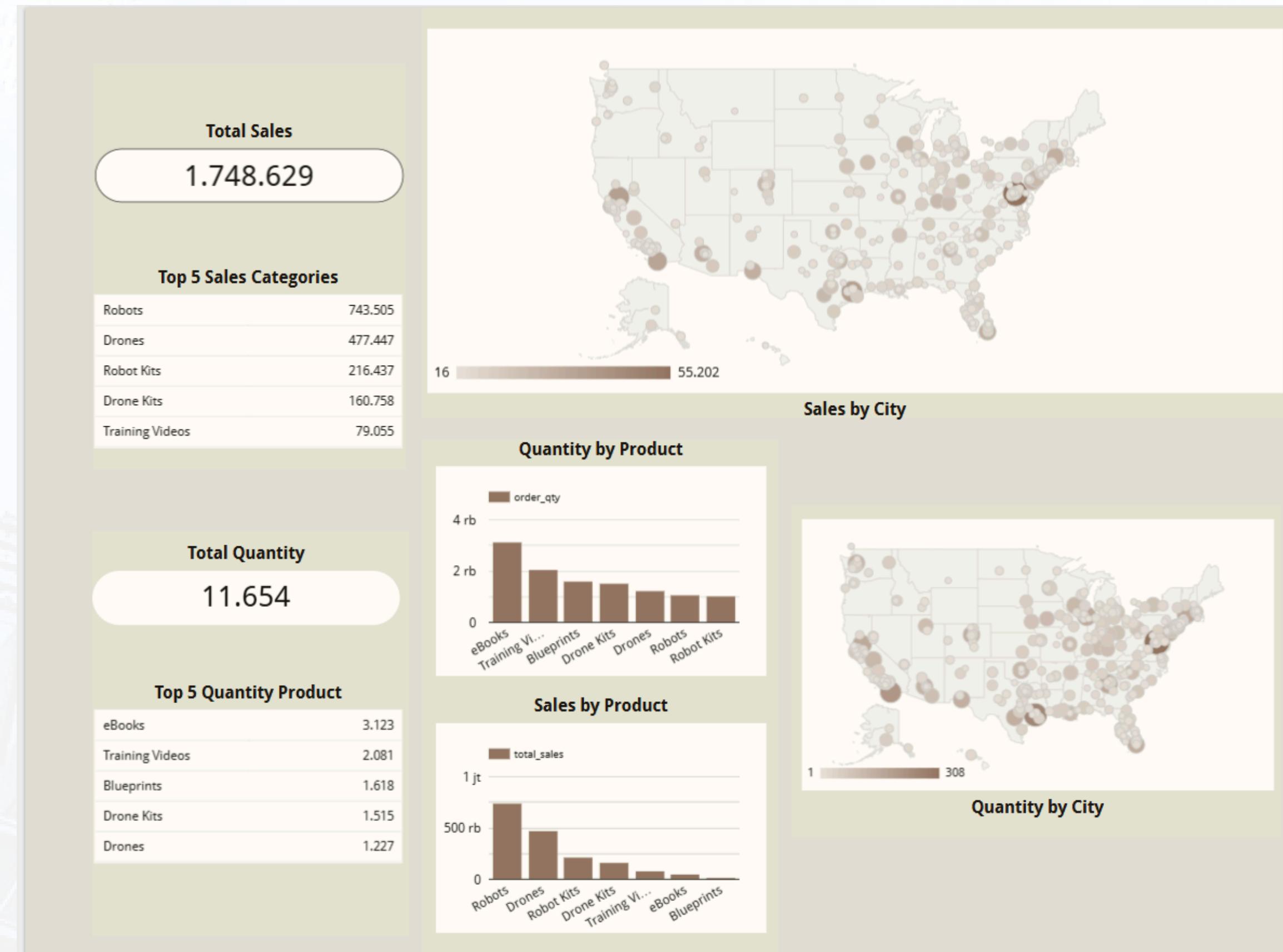
Query results SAVE RESULTS OPEN IN

JOB INFORMATION		RESULTS	CHART	JSON	EXECUTION DETAILS		EXECUTION GRAPH			
Row	cust_email	cust_city	order_date	order_qty	product_name	product_price	category_name	total_sales		
1	edew@nba.com#mailto:edew...	Honolulu	2020-01-01	1	BYOD-220	69	Drone Kits	69		
2	fvaslerqt@comsenz.com#mailto:f...	Jackson	2020-01-01	2	Polar Robots	23	eBooks	46		
3	llespercx@com.com#mailto:lile...	Des Moines	2020-01-01	5	SCARA Robots	19	eBooks	95		
4	lfromonte9@de.vu#mailto:lfr...	Birmingham	2020-01-01	5	Spherical Robots	16	eBooks	80		
5	tmckernot@tinyurl.com#mailto:t...	Katy	2020-01-01	3	RWW-75 Robot	883	Robots	2649		
6	gstiggersdd@eventbrite.com#mailto:gstiggersdd@eventbrite.com#	Saint Petersburg	2020-01-01	6	Drone Video Techniques	37	Training Videos	222		
7	akingaby78@deviantart.com#...	West Palm Beach	2020-01-02	2	Ladybug Robot Blueprint	12	Blueprints	24		
8	jzellick84@ustream.tv#mailto:j...	Washington	2020-01-02	5	BYOD-100	54	Drone Kits	270		
9	jcolthurstgu@cbsnews.com#mailto:j...	Sacramento	2020-01-02	2	DTE-QFN20 Drone	250	Drones	500		
10	ohalbardv@booking.com#mailto:...	Birmingham	2020-01-02	3	Fixed Wing Drones	15	eBooks	45		

# Nomer 4

- Dari hasil tabel yang dibuat pada soal nomor 3, simpanlah hasilnya dalam bentuk CSV. Dengan menggunakan Looker Studio, buatlah visualisasi yang menampilkan data penjualan tersebut. 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
- Data yang digunakan :
  - <https://drive.google.com/file/d/1RwsBQ1FriNfz6qiq0V5nD7gF7j081To3/view?usp=sharing>

# Result



# Nomer 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?
- Data yang digunakan :
  - <https://drive.google.com/file/d/1RwsBQ1FriNfz6qiq0V5nD7gF7j081To3/view?usp=sharing>

# Result

- Fokus pada Produk dengan Penjualan Tinggi (Robots & Drones)
- Tingkatkan Penjualan Produk Digital (Ebooks & Training Videos)
- Optimalisasi Pasar di Kota dengan Penjualan Tertinggi (Washington, Houston, Sacramento)
- Perbaiki Produk dengan Penjualan Rendah (Blueprints & Training Videos)
- Gunakan Data Transaksi untuk Meningkatkan Repeat Purchase

# Conclusion

# Video Presentation Here

[https://youtu.be/yLrzY-GsiFs?si=EBKq9QHFDAer\\_3Op](https://youtu.be/yLrzY-GsiFs?si=EBKq9QHFDAer_3Op)

# Thank You



**Rakamin**  
Academy



Bank  
**Muamalat**