

# FINAL PROJECT

**Bank Muamalat Business Intelligence  
Analyst - Project Based Internship**

Presented by  
Azahra Tasya Mukarimah



# Azahra Tasya Mukarimah

A passionate fresh graduate of Urban and Regional Planning from the Sumatera Institute of Technology, I have experience in organizational management, data analysis, and government institution planning documents. Through my involvement in various organizations, I have developed leadership skills and adaptive thinking. I have also honed my communication and teamwork skills through internships and event activities, where I enjoyed connecting and maintaining relationships with people from diverse backgrounds. I am a curious and goal-oriented individual who is always eager to learn and strive for excellence.

## Experience

Staff Monitoring and Evaluation - Macro Planning  
Control and Development Evaluation Division

# Final Task

## Challenge

1

Tentukan masing-masing primary key pada 4 dataset penjualan

1. Primary key tabel Customer
2. Primary key tabel Products
3. Primary key tabel Orders
4. Primary key tabel ProductCategory

**Source data :**

<https://drive.google.com/file/d/1RwsBQ1FriNfz6qiq0V5nD7gF7jO81To3/view?usp=sharing>

**Answer :**

1. Primary Key Tabel Customer  
**CustomerID**
2. Primary Key Tabel Product  
**ProdNumber**
3. Primary Key Tabel Orders  
**OrderID**
4. Primary Key Tabel  
ProductCategory  
**CategoryID**

# Final Task

## Challenge

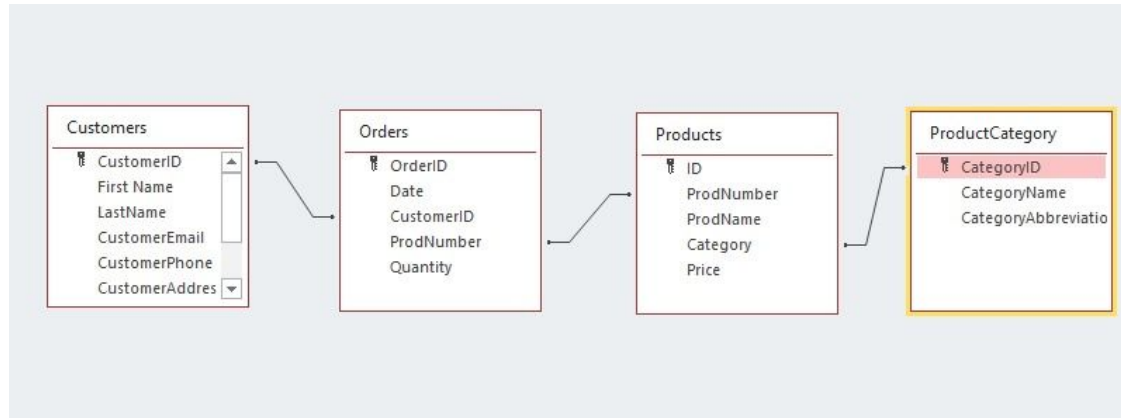
2

Tentukan relationship dari ke-4 table tersebut

**Source data :** <https://drive.google.com/file/d/1RwsBQ1FriNfz6qiq0V5nD7gF7jO81To3/view?usp=sharing>

C.CustomerID= O.CustomerID  
**One to Many**

**Answer :**



**C.CustomerID = O.CustomerID**  
**"One to Many"**

**O.ProdNumber=P/ProdNumber**  
**"Many to One"**

**P.Category=PC.CategoryID**  
**"Many to One"**

# Final Task

## Challenge

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)

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

**Source data :** <https://drive.google.com/file/d/1RwsBQ1FriNfz6qiq0V5nD7gF7jO81To3/view>



**Answer :**

## Query

```

1 SELECT
2   orders.Date AS order_date,
3   category.CategoryName AS category_name,
4   product.ProdName AS product_name,
5   product.Price AS product_price,
6   orders.Quantity AS order_qty,
7   orders.Quantity * product.Price AS total_sales,
8   customer.CustomerEmail AS cust_email,
9   customer.CustomerCity AS cust_city,
10  FROM `my-new-project-406902.FinalTaskMuamalat.Customer` customer
11  INNER JOIN `my-new-project-406902.FinalTaskMuamalat.Orders` orders
12  ON customer.CustomerID =orders.OrderID
13  INNER JOIN `my-new-project-406902.FinalTaskMuamalat.Product` product
14  ON orders.ProdNumber = product.ProdNumber
15  INNER JOIN `my-new-project-406902.FinalTaskMuamalat.Category` category
16  ON product.Category = category.CategoryID
17  order by order_date ASC

```

## Results

Query results									
JOB INFORMATION		RESULTS	CHART	PREVIEW	JSON	EXECUTION DETAILS		EXECUTION GRAPH	
Row	order_date	category_name	product_name	product_price	order_qty	total_sales	cust_email	cust_city	
1	2020-01-01	eBooks	Polar Robots	23.99	2	47.98	grasmusas@i2i.jp#mailto:grasmusas@i2i.jp#	Washington	
2	2020-01-01	Robots	RWW-75 Robot	883.0	3	2649.0	btrevanmj@wordpress.org#mailto:btrevanmj@wordpress.org#	Jamaica	
3	2020-01-01	Training Videos	Drone Video Techniques	37.99	6	227.94	tgrayston7k@pagesperso-orange.fr#mailto:tgrayston7k@pagesperso-orange.fr#	Atlanta	
4	2020-01-01	Drone Kits	BYOD-220	69.0	1	69.0	agarretts6e@osic.gov.au#mailto:agarretts6e@osic.gov.au#	San Francisco	
5	2020-01-01	eBooks	SCARA Robots	19.5	5	97.5	sstronghillc1@google.nl#mailto:sstronghillc1@google.nl#	Midland	
6	2020-01-01	eBooks	Spherical Robots	16.75	5	83.75	gbonde90@vimeo.com#mailto:gbonde90@vimeo.com#	San Francisco	
7	2020-01-02	Robot Kits	BYOR-2640S	189.0	2	378.0	ncarille37@mit.edu#mailto:ncarille37@mit.edu#	Oklahoma City	
8	2020-01-02	Training Videos	Understanding Automation	44.95	1	44.95	bwhetsonio@amazon.de#mailto:bwhetsonio@amazon.de#	Rochester	
9	2020-01-02	Training Videos	Drone Video Techniques	37.99	2	75.98	cmacmichael5y@businesswire.com#mailto:cmacmichael5y@businesswire.com#	Tucson	
10	2020-01-02	Drones	DTE-QFN20 Drone	250.0	2	500.0	awoodruff@techcrunch.com#mailto:awoodruff@techcrunch.com#	Rochester	
11	2020-01-02	Robot Kits	BYOR-2640S	189.0	2	378.0	dhassenci@hp.com#mailto:dhassenci@hp.com#	Rochester	

# Final Task

## Challenge

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 :

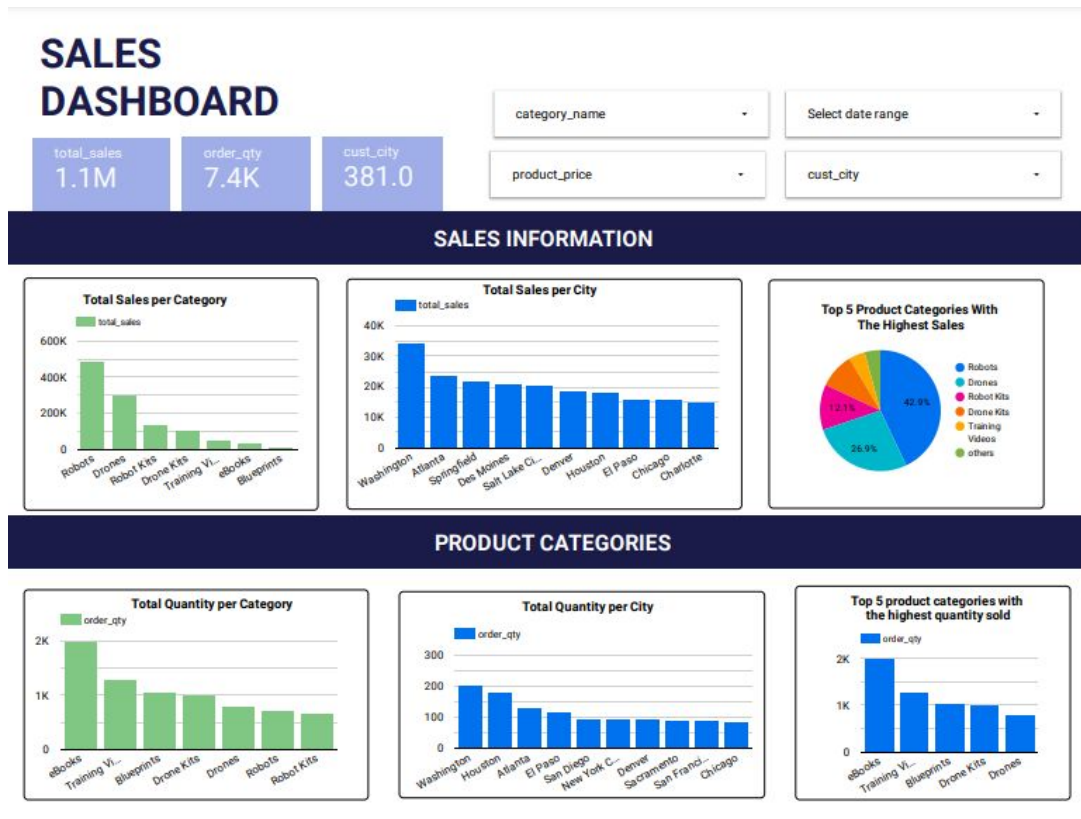
- Total keseluruhan sales
- Total keseluruhan sales berdasarkan kategori produk
- Total keseluruhan qty berdasarkan kategori produk
- Total sales berdasarkan kota - Total qty berdasarkan kota
- Top 5 kategori produk yang paling tinggi salesnya
- Top 5 kategori produk yang paling tinggi qtynya

**Source data :** <https://drive.google.com/file/d/1RwsBQ1FriNfz6qiq0V5nD7gF7jO81To3/view>

# Final Task

## Challenge

Answer :





# Final Task

## Challenge

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?

**Source data :** <https://drive.google.com/file/d/1RwsBQ1FriNfz6qiq0V5nD7gF7jO81To3/view>

## Answer

### Recommendation :

- Based on the data, it is evident that there are 5 product categories with the highest sales: robots, drones, robot kits, drone kits, and training videos. Consequently, I recommend enhancing both the quantity and quality of these five products throughout all cities, with a particular focus on Washington, which has the highest sales.
- On the other hand, the top 3 in terms of quantity (eBooks, Training Videos, Blueprints) are the last 3 in terms of sales. The sales team is advised to offer discounts on purchases with higher quantities for these three products.

# Final Task Challenge

## Link

- Query : <https://console.cloud.google.com/bigquery?sq=994637271059:0d1d1b762b0448f9a89b9409e50b9cc8>
- ResultQuery : [http://drive.google.com/file/d/1c\\_YixiFt3WETrVBRsQ9mggAjVKIWaJDX/view](http://drive.google.com/file/d/1c_YixiFt3WETrVBRsQ9mggAjVKIWaJDX/view)
- Dashboard : <https://lookerstudio.google.com/reporting/21e2fa63-d477-4e9f-a40a-09d846586bcc>
- Github : <https://github.com/azahratasya/Final-Task-Project-Based-Internship--Bank-Muamalat-Business-Intelligence-Analyst-.git>
- Video Presentation :

# Thank You



**Rakamin**  
Academy



**Bank**  
**Muamalat**