

Sales Data Analysis

Bank Muamalat Business Intelligence

Presented by
Philipus Dima Wira Pratomo

Job Experience

- PT Global Digital Niaga Tbk (blibli.com)
Merchandising Junior Officer
- Home Credit Indonesia Data Scientist
Project Based Internship Program
- Kalbe Nutritionals Data Scientist
Project Based Internship Program



Philipus Dima Wira Pratomo

About You

Graduated from Pertamina University majoring in petroleum engineering with a GPA of 3.78. Currently I want to shift career to data scientist by attending a data science bootcamp. where I am developing expertise using data visualization tools such as Tableau and Looker Studio, SQL and several Python libraries to create machine learning. My objective is to become a professional data scientist and leverage my skills to contribute to data-driven decision-making in diverse industries.

Challenge

Find the Primary Key of Each Data

Make an Entity Relationship Diagram

Big Query : Make a Table Master to
Analysis

Looker Studio : Data Analyst & Business
Recommendation

Data Explanation

The data consist of 4 table :

Orders	Information
OrderID	contains unique data for each order
Date	the date the order was formed
CustomerID	contains unique data for each customer
ProdNumber	contains unique data for each product
Quantity	quantity purchased per order id

Products	Information
ProdNumber	contains unique data for each product
ProdName	contains name for each product
Category	contains category for each product
Price	contains price for each product

ProductCategory	Information
CategoryID	contains unique data for each category product
CategoryName	contains name for each category product
CategoryAbbreviation	Category Abbreviation for each category product

Data Explanation Cont

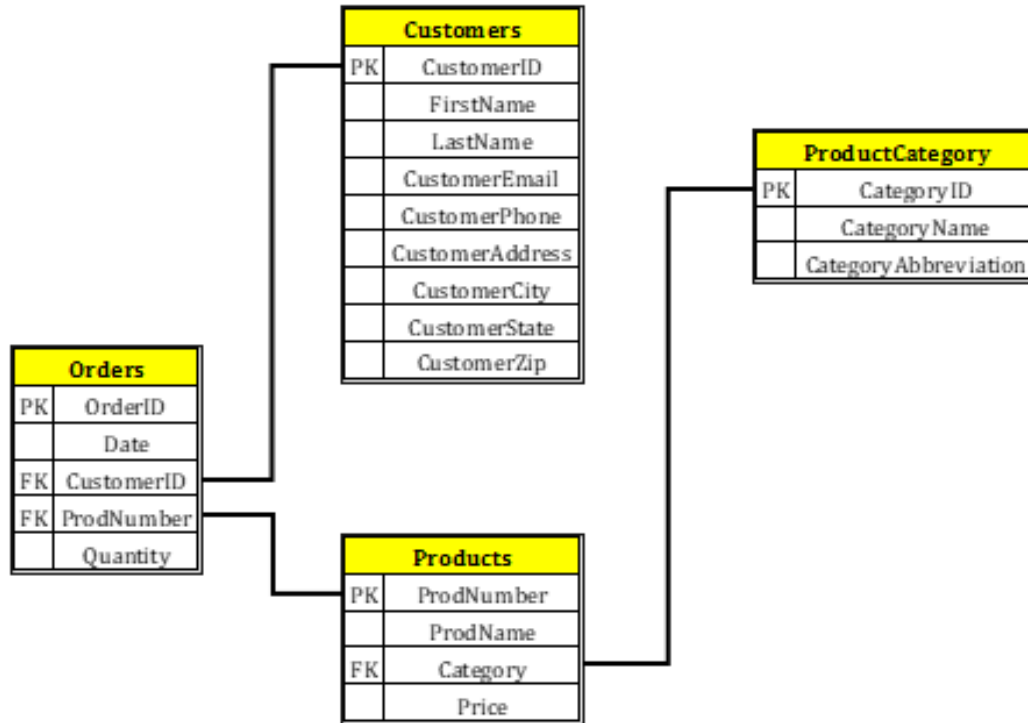
Customers	Information
CustomerID	contains unique data for each customer
FirstName	contains first name for each customer
LastName	contains last name for each customer
CustomerEmail	contains email for each customer
CustomerPhone	contains phone number for each customer
CustomerAddress	contains address where the customer live for each customer
CustomerCity	contains city where the customer live for each customer
CustomerState	contains state where the customer live for each customer
CustomerZip	contains zip code where the customer live for each customer

Find the Primary Key of Each Data

Determine each primary key in the 4 dataset :

1. Primary key tabel Customer : CustomerID
2. Primary key tabel Products : ProdNumber
3. Primary key tabel Orders : OrderID
4. Primary key tabel ProductCategory : CategoryID

Make an Entity Relationship Diagram



Big Query : Make a Table Master to Analysis

Steps :

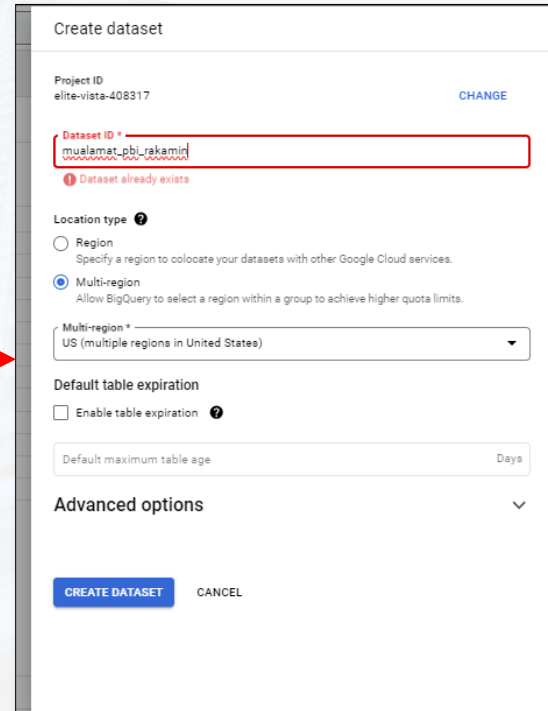
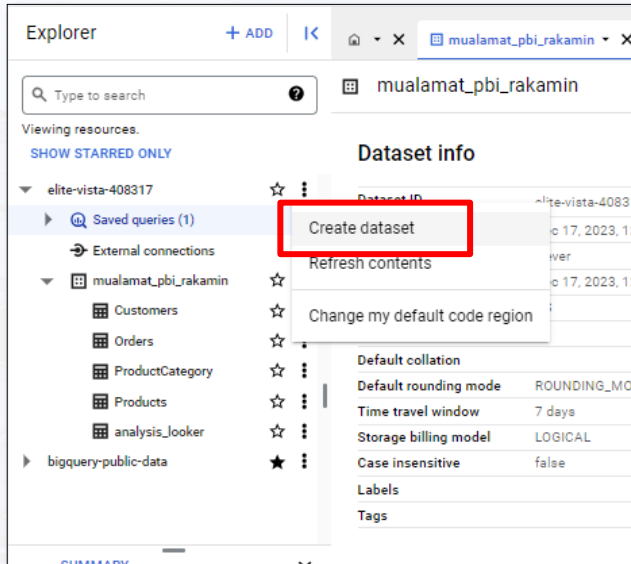
First Make a Dataset in Big
Query

Add Local File Upload

Make a Data set to Analysis

Big Query : Make a Table Master to Analysis

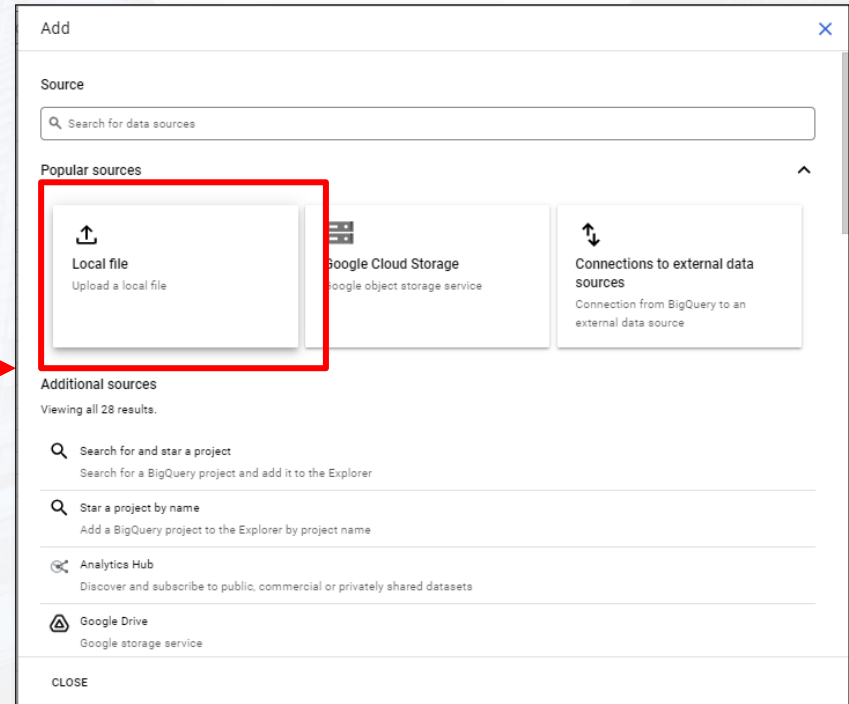
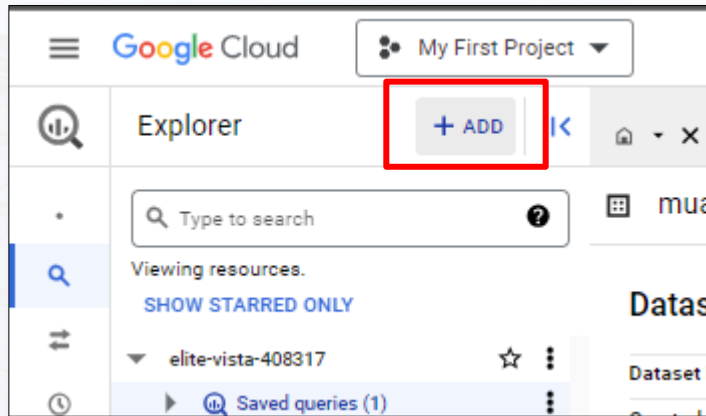
First Make a Dataset in Big Query



Big Query : Make a Table Master to Analysis

Add Local File Upload

Upload 4 data set



Big Query : Make a Table Master to Analysis

Make a Data Set in Query and download it into csv file

Using query to make new Data set consist of :

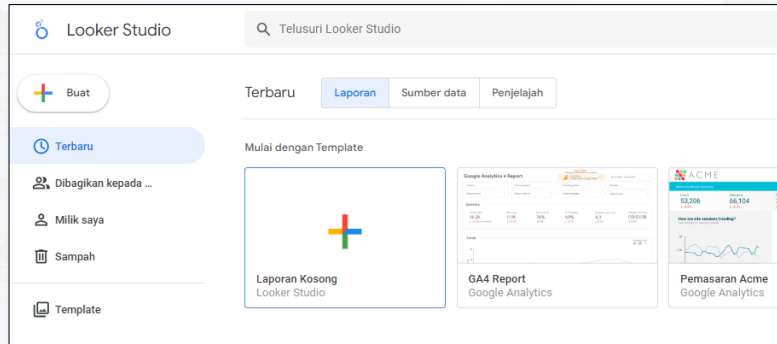
1. CustomerEmail (cust_email)
2. CustomerCity (cust_city)
3. OrderDate (order_date)
4. OrderQty (order_qty)
5. ProductName (product_name)
6. ProductPrice (product_price)
7. ProductCategoryName (category_name)
8. TotalSales (total_sales)

```
WITH new_cat AS (  
  SELECT  
    o.ProdNumber,  
    o.ProdName,  
    o.Category,  
    o.Price,  
    c.CategoryName  
  FROM  
    `elite-vista-408317.mualamat_pbi_rakamin.Products` o  
  JOIN  
    `elite-vista-408317.mualamat_pbi_rakamin.ProductCategory` c ON o.Category = c.CategoryID  
)
```

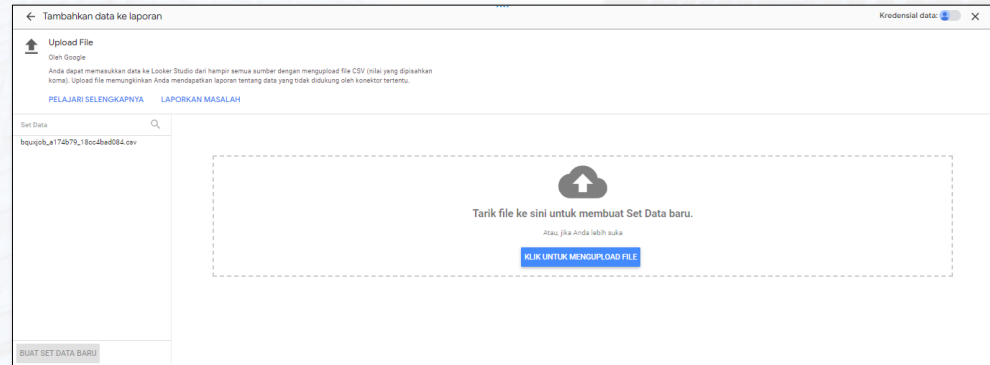
```
SELECT  
  c.CustomerEmail AS cust_email,  
  c.CustomerCity AS cust_city,  
  o.Date AS order_date,  
  o.Quantity AS order_qty,  
  p.ProdName AS product_name,  
  p.Price AS product_price,  
  p.CategoryName AS category_name,  
  (o.Quantity * p.Price) AS total_sales  
FROM  
  `elite-vista-408317.mualamat_pbi_rakamin.Orders` o  
JOIN  
  `elite-vista-408317.mualamat_pbi_rakamin.Customers` c ON o.CustomerID = c.CustomerID  
JOIN  
  new_cat p ON o.ProdNumber = p.ProdNumber  
ORDER BY  
  o.Date;
```

Looker Studio : Data Analyst

1. Make an empty report



2. Upload data using csv file that already make



Make a Dashboard Sales Performance Tracker

There is a dashboard containing :

- Total sales
- Total sales based on product category
- Total qty based on product category
- Total sales by city
- Total qty by city
- Top 5 product categories with the highest sales
- Top 5 product categories with the highest qty

Make a Dashboard Sales Performance Tracker

SALES PERFORMANCE TRACKER

Filter

Year

Month

Category Name

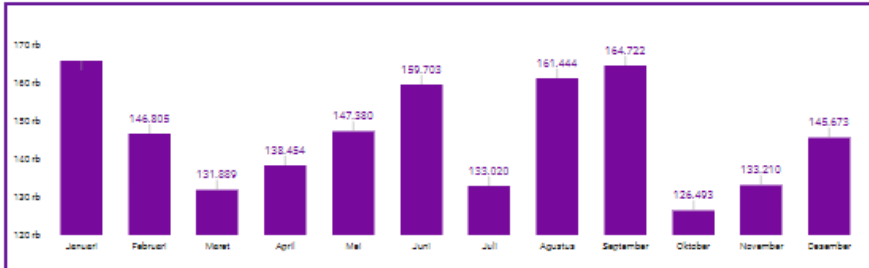
Sales Performance

Sales

1.754.751

Qty

11.654

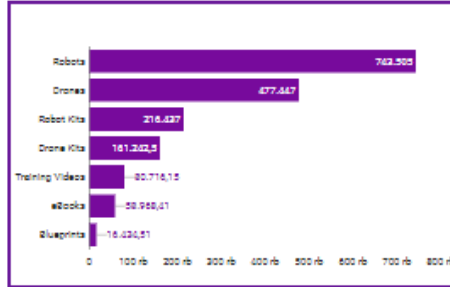


with the help of year, month and category filters you can help with daily, monthly and yearly analysis

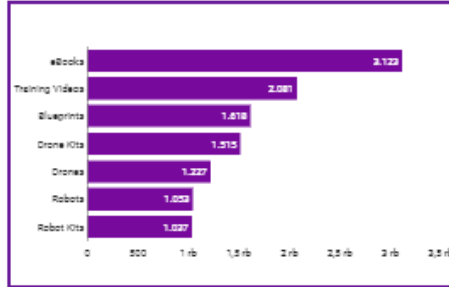
Make a Dashboard Sales Performance Tracker

Product Detail

Sales



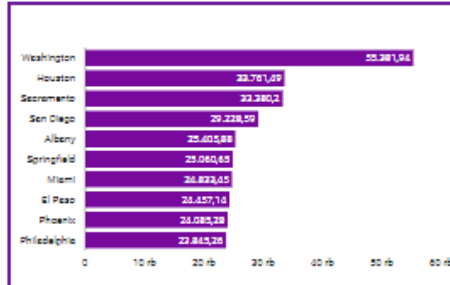
Qty



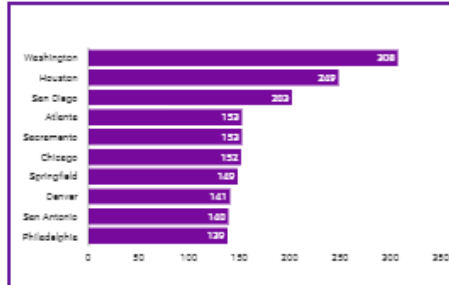
From the filter above, you can also see an analysis of all types of products and cities, which have been sorted from largest to smallest so that it is easier to see the potential of each product and city.

City Detail

Sales



Qty

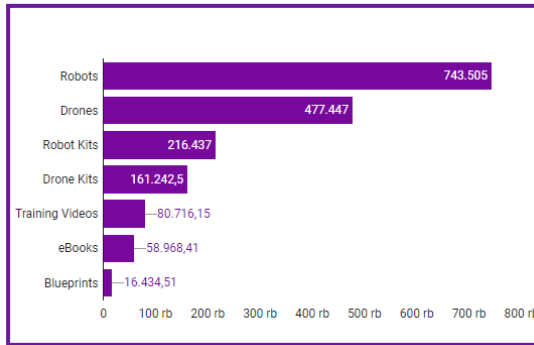


From this bar graph, you can also see the top 5 products in terms of sales and quantity, apart from that you can also see the top 5 cities in terms of sales and quantity.

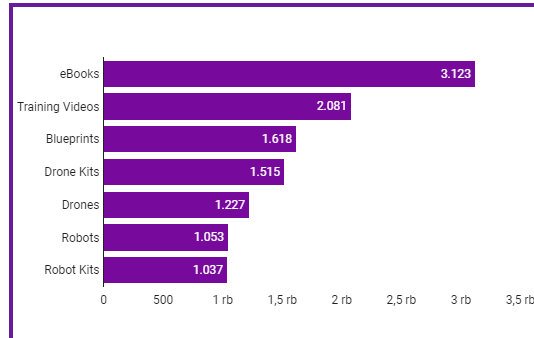
Analysis & Business Recommendation

Product Detail

Sales



Qty



Analysis

The graph next to it shows details of sales by product from total sales for 2 years. It can be seen that robots have the highest total sales but have the lowest total quantity sold. On the other hand, books have the lowest total sales, but have the highest total quantity sold.

Business Recommendation

Sales Strategy Integration:

1. **Cross-Promotion:** Use the strengths of each product to promote each other. For example, give discount vouchers for purchasing ebooks to buyers of robots, and vice versa. This could drive sales in both products.
2. **Combined Packages:** Create attractive combined packages by pairing robots and ebooks products to offer better value to customers. This could spur sales for both products.

Insert Your Link Here

Link Looker Studio : <https://lookerstudio.google.com/reporting/2bbd7011-9d9b-4fb1-9a6d-68d0df4d4dec>

Link GitHub : <https://github.com/pwirap>

Video Presentation Here

<https://youtu.be/5hxZVTzs5UY>

Thank You



Rakamin
Academy



Logo Company