

Bank Muamalat Business Intelligence Analyst

Virtual Internship Experience

Presented by :

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Romadlon Iqbal Muktia

A results-driven person with a proven track record of helping organizations optimize operations, drive profitability, and achieve strategic goals. I'm motivated by new challenges because I always want to grow with the company.



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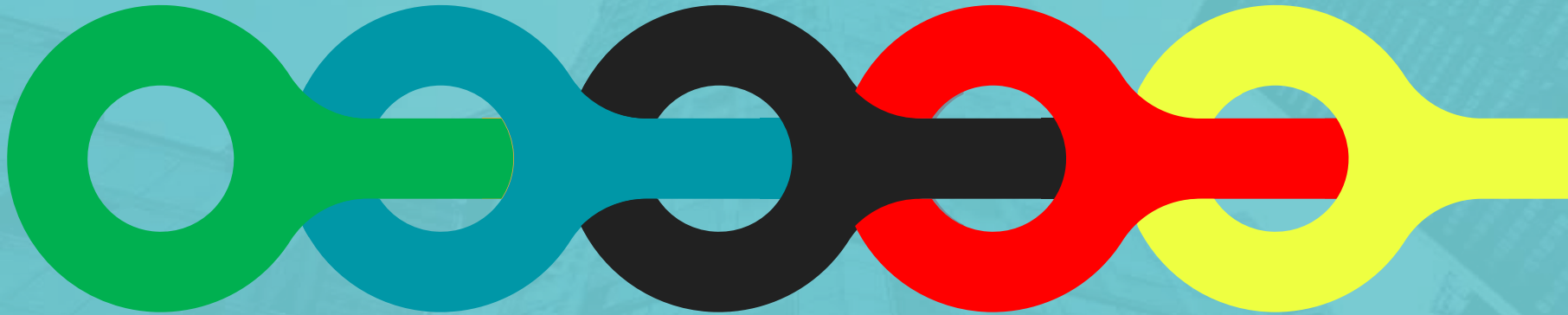
<https://github.com/romadloniqbal/Project-99>

Outline

DATASET

RELATIONSHIP TABLES

DASHBOARD



PRIMARY KEY

TABLE MASTER

About Dataset

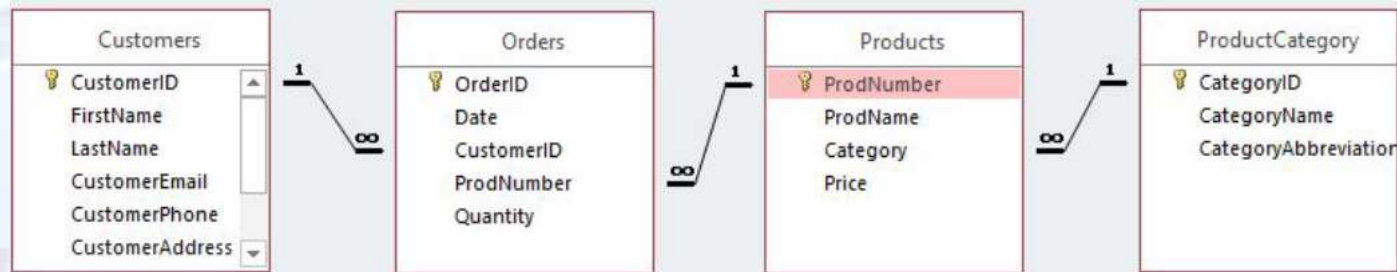
This dataset contains four tables that will be used to create a Sales Dashboard providing information on orders, customers in different cities, products, and product categories from January 1st, 2020 to December 31st, 2021.

Define a Primary Key

A primary key is a column or series of columns in a database table that uniquely identifies each row or entity in the table.

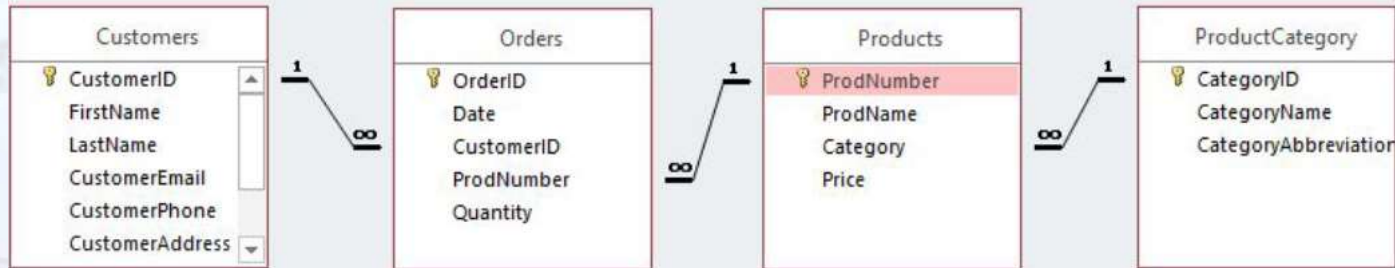
- | | | |
|---------------------------------------|---|--------------------|
| 1. Customer primary key table | : | Customer ID |
| 2. Product primary key table | : | ProdNumber |
| 3. Order primary key table | : | OrderID |
| 4. Product Category primary key table | : | Category ID |

Determine a relationship between tables.



The term "table relationships" generally pertains to the connections or associations between various tables in a relational database. In such databases, data is arranged into tables, where each table corresponds to a distinct entity or concept, and each row within the table represents a singular occurrence of that entity. These table relationships are built using keys, which usually include primary and foreign keys.

Determine a relationship between tables.



The following relationship for each table is :

- Customers.CustomerID = Orders.CustomerID with **one to many** relationship.
- Orders.ProdNumber = Products.ProdNumber with **many to one** relationship
- Products.Category = ProductCategory.CategoryID with **many to one** relationship

Create a Table Master

The purpose of this master table is to combine 4 tables using Google BigQuery queries. The resulting data will be visualized on a dashboard with the following features :

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

```
1 WITH MASTER AS (  
2   SELECT  
3     Orders.Date AS order_date,  
4     ProductCategory.CategoryName AS category_name,  
5     Product.ProdName AS product_name,  
6     Product.Price AS product_price,  
7     Orders.Quantity AS order_qty,  
8     (Orders.Quantity * Product.Price) AS total_sales,  
9     Customers.CustomerEmail AS cust_email,  
10    Customers.CustomerCity AS cust_city  
11  FROM  
12    `psychic-coral-414714.FinalTask5.Orders` AS Orders  
13  LEFT JOIN  
14    `psychic-coral-414714.FinalTask5.Customers` AS Customers  
15    ON Customers.CustomerID = Orders.CustomerID  
16  LEFT JOIN  
17    `psychic-coral-414714.FinalTask5.Product` AS Product  
18    ON Product.ProdNumber = Orders.ProdNumber  
19  LEFT JOIN  
20    `psychic-coral-414714.FinalTask5.ProductCategory` AS ProductCategory  
21    ON Product.Category = ProductCategory.CategoryID  
22  ORDER BY 1  
23 )  
24  
25 SELECT * FROM MASTER;
```


Query Results

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.com#mailto:edew...	Honolulu
2	2020-01-01	eBooks	Polar Robots	23.99	2	47.98	fvaslerqt@comsenz.com#malt...	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@eventbri e.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

Dashboard

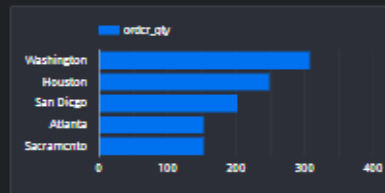
PT SEJAHTERA BERSAMA | DASHBOARD

Category

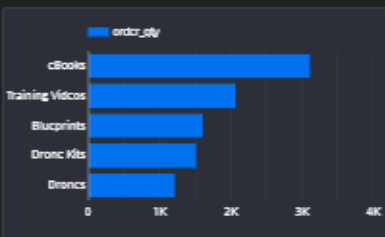
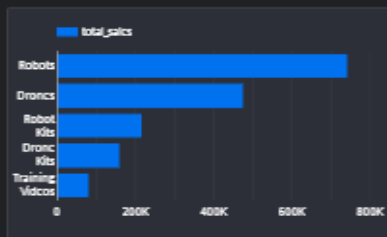
cust_city

total_sales
1,754,750.57

Sales and Quantity for Each City



Top Product Categories for each Sales and Quantities



Looker Studio

[Dashboard Link](#)

Suggestion



Based on data viz, we can conclude that :

eBooks are the most popular product in terms of quantity, while robots are the highest-selling category. Based on this data, I recommend to increase inventory for the top 5 product categories to boost sales

Access Link



<https://github.com/romadloniqbal/Project99/tree/main/Bank%20Muamalat%20Business%20Intelligence%20Analyst%20Project%20Based%20Internship%20Program>



Google
Big Query

https://console.cloud.google.com/bigquery?project=psychic-coral-414714&ws=!1m9!1m4!1m3!1spsychic-coral-414714!2sbquxjob_5532ba63_18dd39b95bd!3sasiasoutheast2!1m3!3m2!1spsychic-coral-414714!2sFinal_Task_5



Looker Studio

<https://lookerstudio.google.com/u/0/reporting/85647982-451c-403d-bf37-b006202a00a1/page/8mDrD>

Thank You



X



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