

Sales Data Analysis Dashboard

Bank Muamalat – Business
Intelligence Analyst

Presented by

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Project Based Internship



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I am a passionate self-challenger, data-driven problem solver, and endless learner. Currently, I am also an evening class Management student at Ahmad Dahlan Institute of Technology and Business who is interested in the field of analysis, especially in business and marketing.

Experience

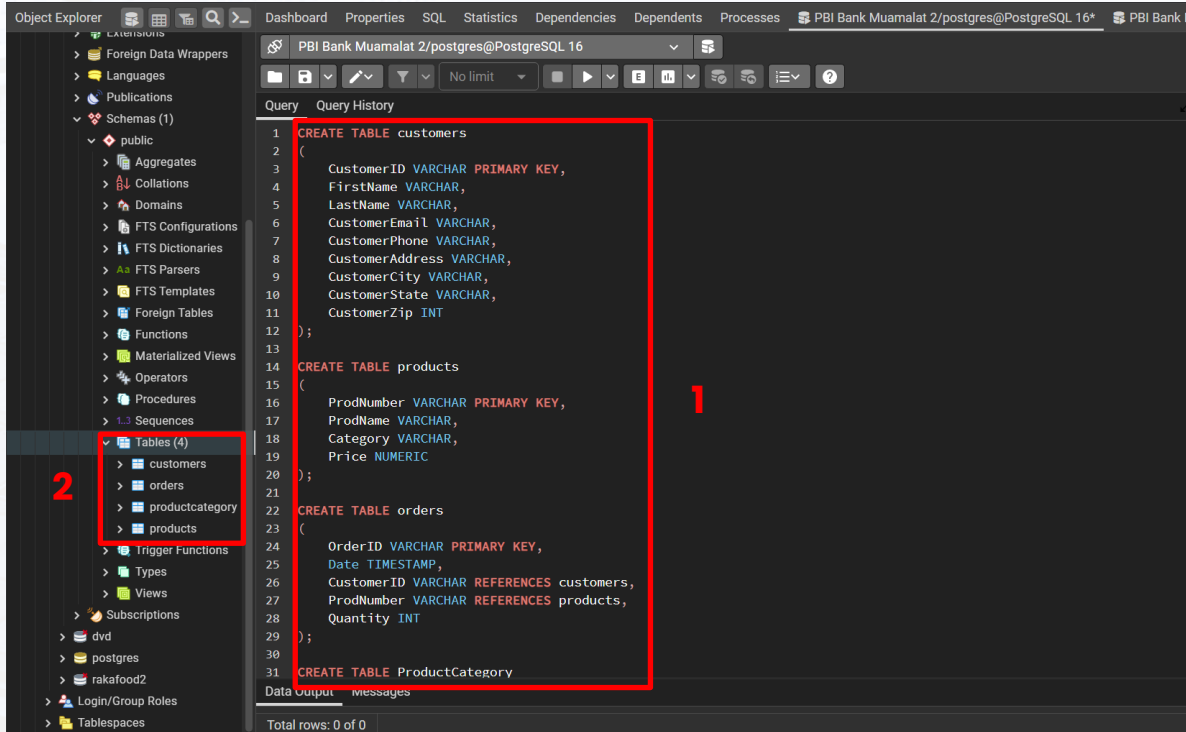
- Creating a Machine Learning model to predict potential buyers for Health Insurance
- Performing data exploration and analysis using SQL and Python to obtain insights and useful recommendations for business decision-making.
- Getting the opportunity to work on virtual data-driven projects with renowned companies as part of an internship program.

Case Study

Challenge of the project :

1. Determine the respective primary keys in the 4 sales datasets.
2. Determining the relationship of the 4 tables.
3. As a BI Analyst, we are asked to create a master table.
4. From the results of the previously created master table, save the results in CSV format. Then create a visualization that displays the sales data using Looker Studio.
5. As a BI analyst, what can you suggest to maintain or increase sales with the existing transaction detail table?

Result



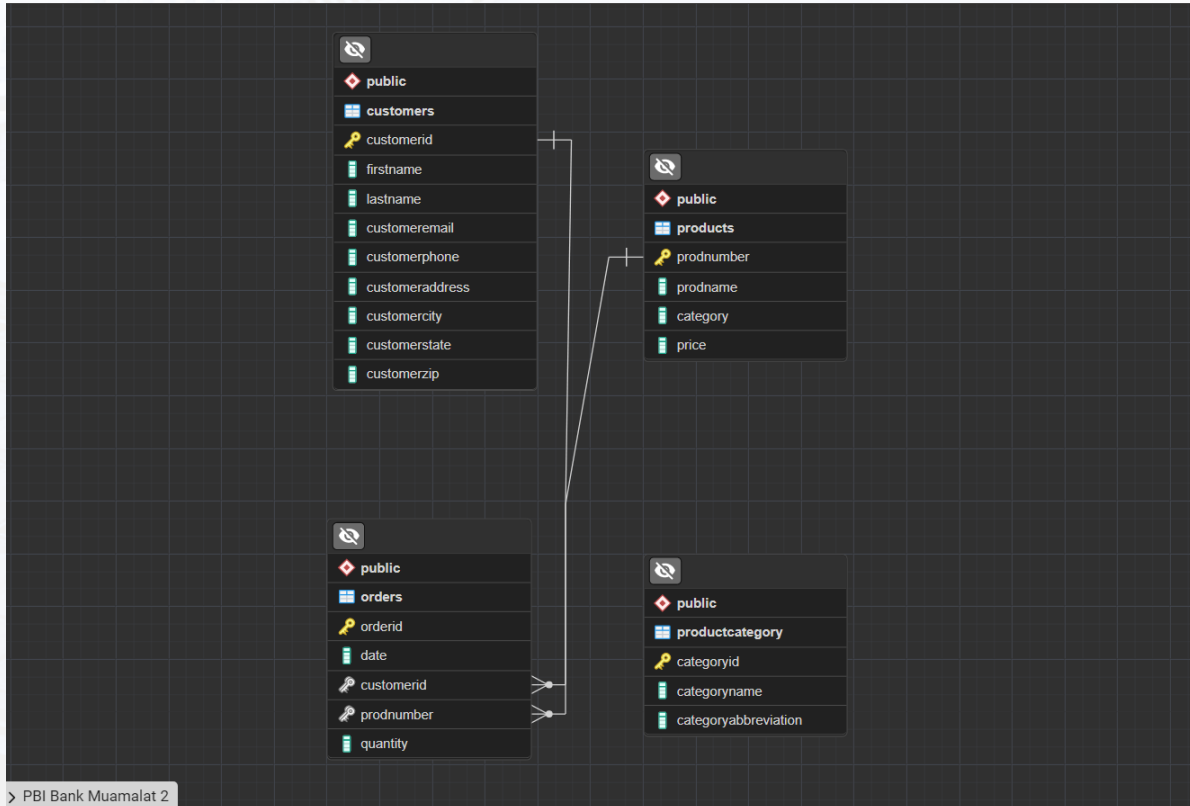
The screenshot displays the PostgreSQL Enterprise Manager interface. On the left, the 'Object Explorer' pane shows a tree structure of database objects. A red box labeled '2' highlights the 'Tables (4)' folder, which contains sub-items for 'customers', 'orders', 'productcategory', and 'products'. The main query editor pane shows a SQL script with three CREATE TABLE statements. A red box labeled '1' highlights the first two statements: 'CREATE TABLE customers' and 'CREATE TABLE products'. The 'customers' table has columns: CustomerID (VARCHAR, PRIMARY KEY), FirstName (VARCHAR), LastName (VARCHAR), CustomerEmail (VARCHAR), CustomerPhone (VARCHAR), CustomerAddress (VARCHAR), CustomerCity (VARCHAR), CustomerState (VARCHAR), and CustomerZip (INT). The 'products' table has columns: ProdNumber (VARCHAR, PRIMARY KEY), ProdName (VARCHAR), Category (VARCHAR), and Price (NUMERIC). The third statement, 'CREATE TABLE orders', is partially visible and defines columns: OrderID (VARCHAR, PRIMARY KEY), Date (TIMESTAMP), CustomerID (VARCHAR, REFERENCES customers), ProdNumber (VARCHAR, REFERENCES products), and Quantity (INT). The status bar at the bottom indicates 'Total rows: 0 of 0'.

```
1 CREATE TABLE customers
2 (
3     CustomerID VARCHAR PRIMARY KEY,
4     FirstName VARCHAR,
5     LastName VARCHAR,
6     CustomerEmail VARCHAR,
7     CustomerPhone VARCHAR,
8     CustomerAddress VARCHAR,
9     CustomerCity VARCHAR,
10    CustomerState VARCHAR,
11    CustomerZip INT
12 );
13
14 CREATE TABLE products
15 (
16     ProdNumber VARCHAR PRIMARY KEY,
17     ProdName VARCHAR,
18     Category VARCHAR,
19     Price NUMERIC
20 );
21
22 CREATE TABLE orders
23 (
24     OrderID VARCHAR PRIMARY KEY,
25     Date TIMESTAMP,
26     CustomerID VARCHAR REFERENCES customers,
27     ProdNumber VARCHAR REFERENCES products,
28     Quantity INT
29 );
30
31 CREATE TABLE ProductCategory
32 (
33     ProductCategoryID VARCHAR PRIMARY KEY,
34     ProductCategoryName VARCHAR,
35     ProductCategoryDescription VARCHAR,
36     ProductCategoryParentID VARCHAR
37 );
```

Determine the respective primary keys in the 4 sales datasets.

1. Create a table using a query and determine the data types, primary key, and foreign key.
2. The result of the query after running (4 tables are formed)

Result



Determining the relationship of the 4 tables.

1. Table **customers** memiliki Primary Key **customerid**
2. Table **products** memiliki Primary Key **prodnumber**
3. Table **orders** memiliki Primary Key **orderid** serta Foreign Key **customerid** dan **prodnumber**.

Result

PBI Bank Muamalat 2/postgres@PostgreSQL 16

Query Query History

```
1 SELECT o.date AS order_date, pc.categoryname AS category_name, p.prodname AS product_name, p.price AS product_price
2 FROM orders o
3 JOIN products p ON o.prodnumber = p.prodnumber
4 JOIN productcategory pc ON p.category = pc.categoryid
5 JOIN customers c ON o.customerid = c.customerid
6 ORDER BY o.date ASC;
```

1

Data Output Messages

	order_date date	category_name character varying	product_name character varying	product_price numeric	order_qty integer	total_sales numeric	cust_email character varying
1	2020-01-01	Robots	RWW-75 Robot	883	3	2649	tmckernot@tinyurl.com#mailto:tmckernot@tinyurl.com#
2	2020-01-01	Training Videos	Drone Video Techniques	37.99	6	227.94	gstiggersdd@eventbrite.com#mailto:gstiggersdd@eventbrite.com#
3	2020-01-01	Drone Kits	BYOD-220	69	1	69	edew@nba.com#mailto:edew@nba.com#
4	2020-01-01	eBooks	SCARA Robots	19.5	5	97.5	llespercx@com.com#mailto:llespercx@com.com#
5	2020-01-01	eBooks	Polar Robots	23.99	2	47.98	fvaslerqt@comsenz.com#mailto:fvaslerqt@comsenz.com#
6	2020-01-01	eBooks	Spherical Robots	16.75	5	83.75	lfromonte9@de.vu#mailto:lfromonte9@de.vu#
7	2020-01-02	Robot Kits	BYOR-2640S	189	2	378	aguiongo@behance.net#mailto:aguiongo@behance.net#
8	2020-01-02	Training Videos	Understanding Automation	44.95	1	44.95	ksteershp@ameblo.jp#mailto:ksteershp@ameblo.jp#
9	2020-01-02	Training Videos	Drone Video Techniques	37.99	2	75.98	lgatenbyel@quantcast.com#mailto:lgatenbyel@quantcast.com#
10	2020-01-02	Drones	DTE-QFN20 Drone	250	2	500	jcolthurstgu@cbsnews.com#mailto:jcolthurstgu@cbsnews.com#
11	2020-01-02	Robot Kits	BYOR-2640S	189	2	378	gmirrlees4v@state.tx.us#mailto:gmirrlees4v@state.tx.us#
12	2020-01-02	Drone Kits	BYOD-100	54	5	270	jzellick84@ustream.tv#mailto:jzellick84@ustream.tv#
13	2020-01-02	eBooks	Fixed Wing Drones	15.5	3	46.5	ohalbardv@booking.com#mailto:ohalbardv@booking.com#
14	2020-01-02	Blueprints	Ladybug Robot Blueprint	12	2	24	akingaby78@deviantart.com#mailto:akingaby78@deviantart.com#

2

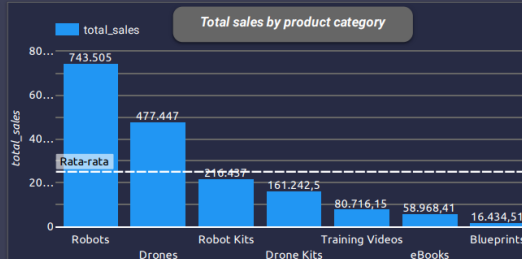
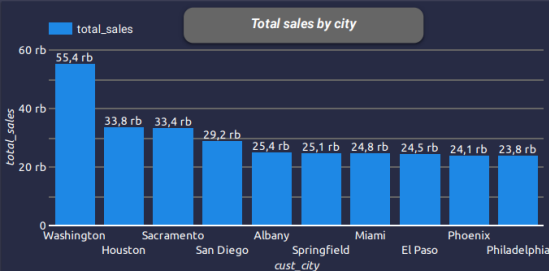
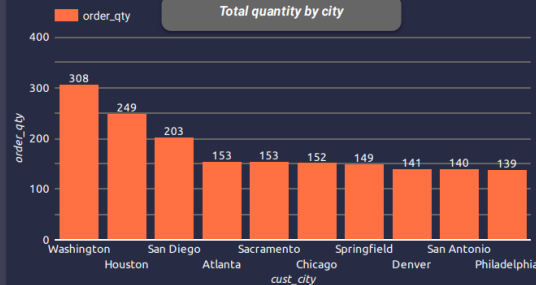
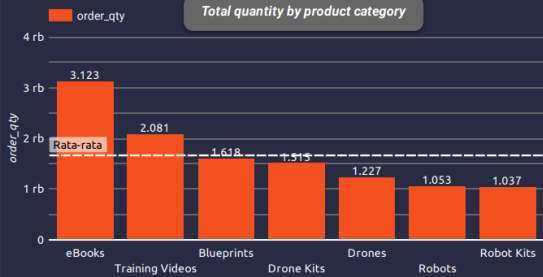
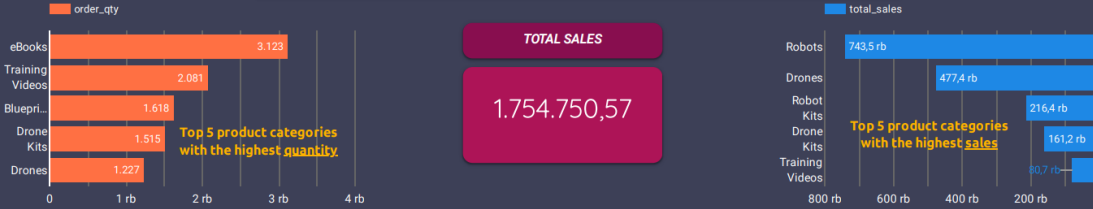
Total rows: 1000 of 3339 Query complete 00:00:00.076 Ln 6, Col 21

As a BI Analyst, we are asked to create a master table.

1. Create a Master Table using a query.
2. The result of the query when executed (produces the master table).
3. After the master table is formed, we save it in CSV format.

Result

Analisis Data Penjualan Produk PT Sejahtera Bersama



Create a visualization that displays the sales data using Looker Studio.

Result

As a BI analyst, what can you suggest to maintain or increase sales with the existing transaction detail table?

Meningkatkan penjualan produk kategori Robots: Berdasarkan grafik, produk kategori robots memiliki penjualan tertinggi dan jumlah terjual terbanyak di antara produk lainnya. Produk ini juga menunjukkan tren peningkatan penjualan dan jumlah terjual sepanjang waktu. Oleh karena itu, saya menyarankan untuk memaksimalkan penjualan produk ini dengan cara meningkatkan promosi, memberikan diskon, atau menawarkan paket bundling dengan produk lain.

Memanfaatkan pasar potensial di kota Washington: Kota Washington memiliki populasi yang besar, pendapatan per kapita yang tinggi, dan permintaan yang tinggi terhadap produk-produk teknologi. Oleh karena itu, saya menyarankan untuk memanfaatkan pasar potensial ini dengan cara meningkatkan distribusi, promosi, dan pelayanan di kota Washington. Hal ini dapat meningkatkan loyalitas pelanggan, merebut pangsa pasar, dan meningkatkan keuntungan.

Result

As a BI analyst, what can you suggest to maintain or increase sales with the existing transaction detail table?

Menyelidiki faktor-faktor yang mempengaruhi penjualan di kota Washington serta Mengadaptasi strategi bisnis di kota Washington ke kota-kota lainnya : Jika faktor-faktor internal yang mempengaruhi penjualan di kota Washington dapat diidentifikasi, maka strategi bisnis yang berhasil di kota Washington dapat diadaptasi ke kota-kota lainnya yang memiliki karakteristik pasar yang serupa. Misalnya, jika produk kategori drone menjadi produk unggulan di kota Washington, maka produk ini dapat dipasarkan lebih agresif di kota-kota lainnya yang memiliki minat yang tinggi terhadap produk ini. Hal ini dapat meningkatkan penjualan dan pangsa pasar di kota-kota lainnya.

My Link

link GitHub

[AlthaafZidane · GitHub](#)

Video Presentation Here

<https://drive.google.com/file/d/1xsVoKEcoC543csqDhGX7kM5BBJVIFEMH/view?usp=sharing>

Thank You



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