Analyzing eCommerce Business Performance with SQL
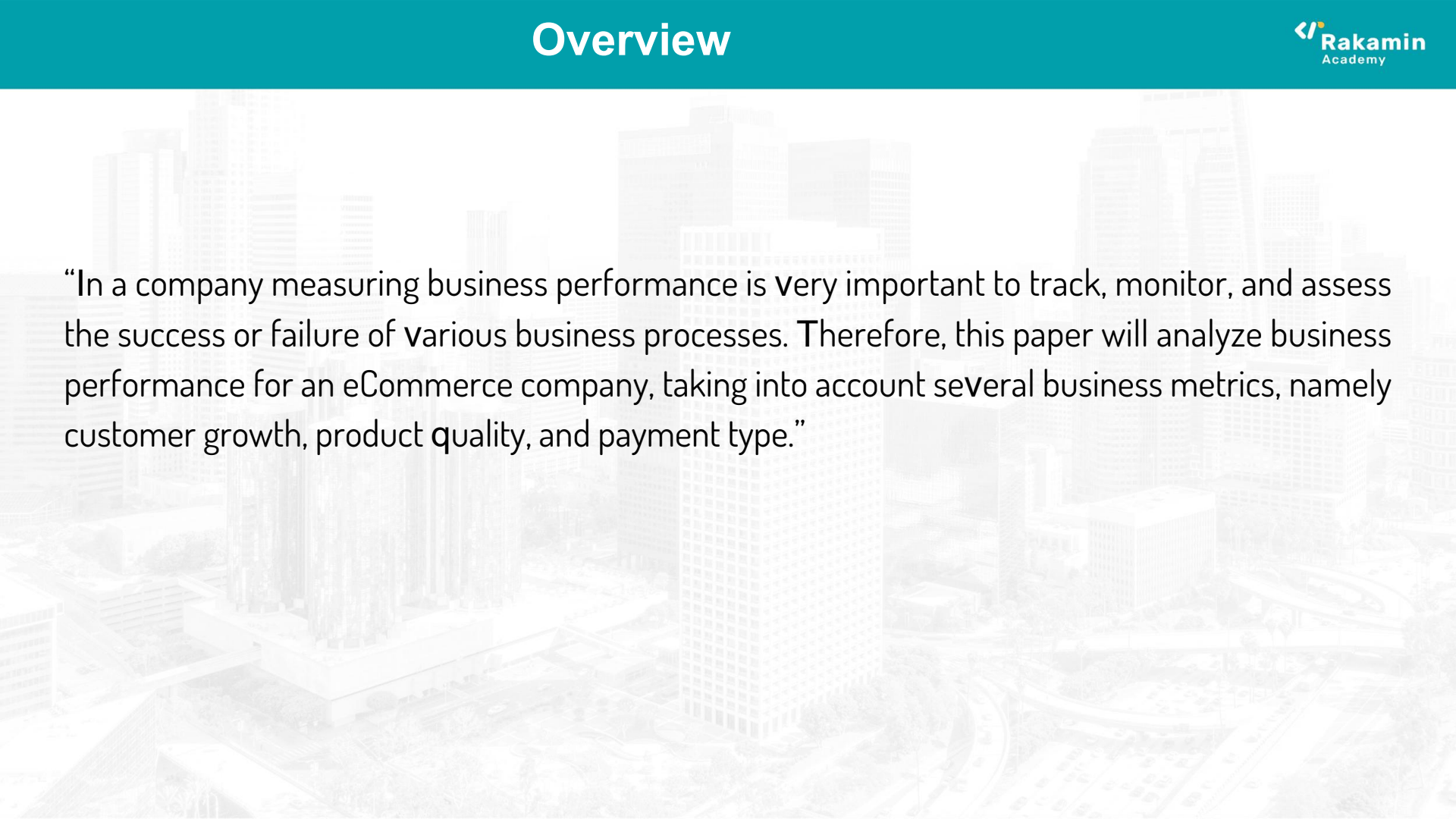
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"Zulhilmi umarta is an agribusiness graduate. He moved on to become a data analyst. He Pursuing experience and knowledge in the data field through bootcamps, courses, and project. He is also very interested in a career in the world of data."

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Overview

"In a company measuring business performance is very important to track, monitor, and assess the success or failure of various business processes. Therefore, this paper will analyze business performance for an eCommerce company, taking into account several business metrics, namely customer growth, product quality, and payment type."

Entity Relationship Diagram

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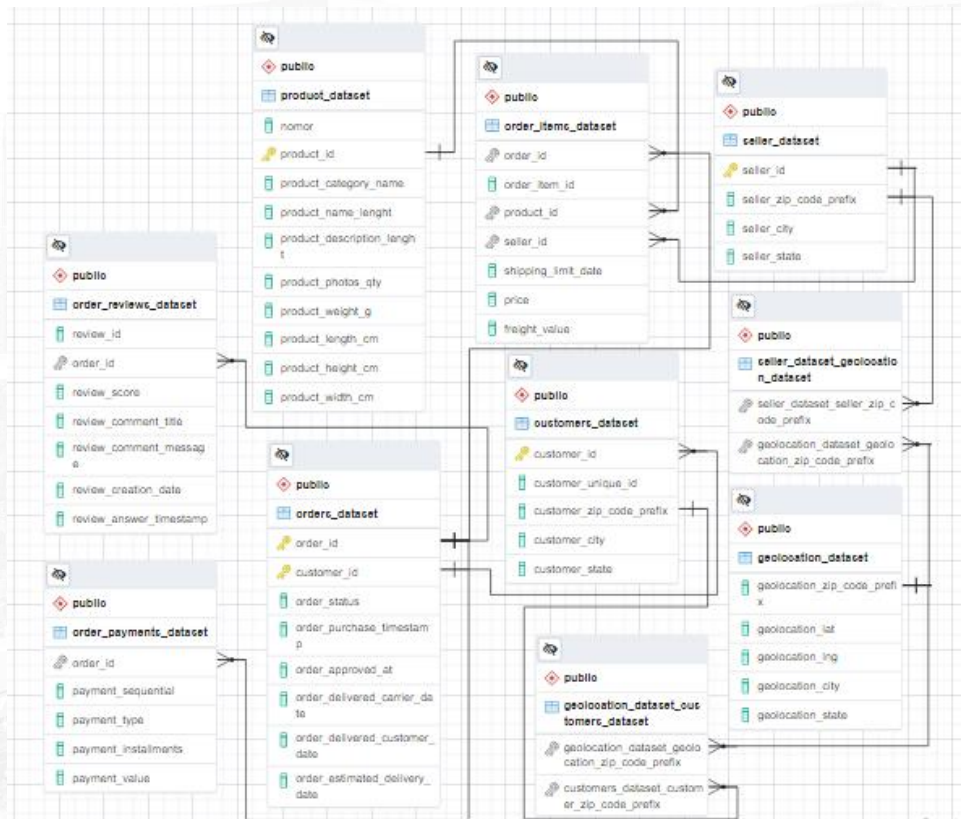
Steps to Create an ERD

1

Doing data preparation, where the data before being imported into postgresql that must be done first is to create tables and columns based on the data we will use. Then the data is imported.

2

After the data has been imported, click the tools in the postgrsql menu bar then select ERD Tool open the page on the worksheet to create the ERD.

3

Then drag the table that has been created and import the data into the ERD worksheet.

4

After all the tables are dragged, they are connected by lines based on the same column between tables.

Annual Customer Activity Growth Analysis

years double precision	mau bigint	total_new_customers bigint	total_customer_repeat_order bigint	rata_rata_order numeric
1	2016	109	326	3	1.01
2	2017	3758	43713	1256	1.03
3	2018	5401	52749	1167	1.02

The full query can be seen here

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Analysis :

From the table results, the data started from 2016 in September, so the data from 2016 to 2017 produced a much different figure. The results of the analysis show that monthly customer activity from 2017 to 2018 has increased.

	years double precision	mau bigint
1	2016	109
2	2017	3758
3	2018	5401
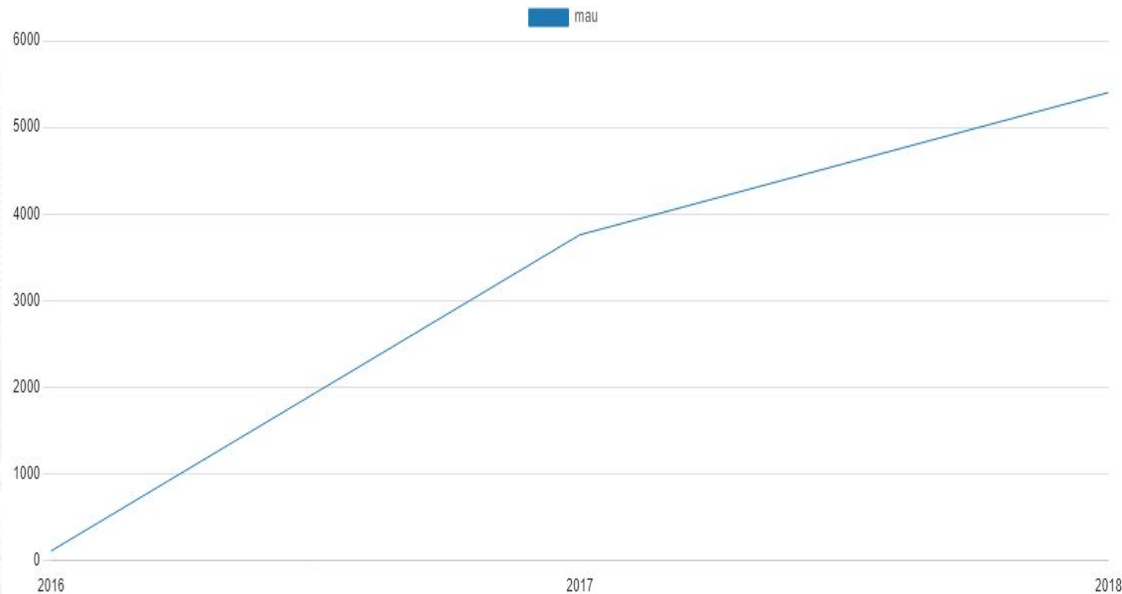
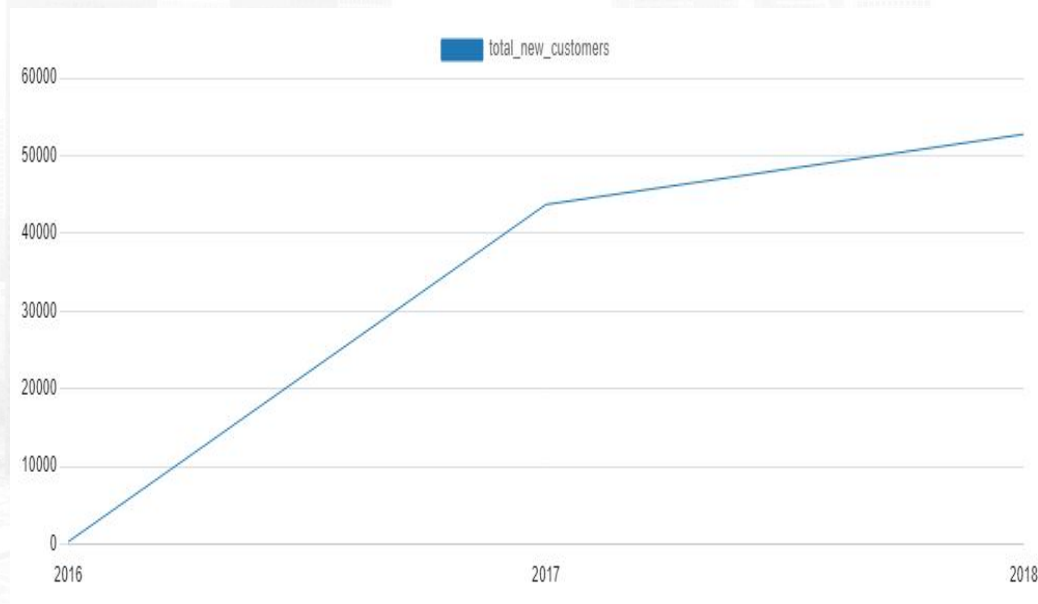

The full query can be seen here

Annual Customer Activity Growth Analysis

Analysis :

From the results of the available data, the data starts from 2016 in September, so there is a difference in data from 2016 to 2017. The results of the analysis show that the growth of new customers from 2017 to 2018 has increased.

|	years double precision 🔒	total_new_customers bigint 🔒
1	2016	326
2	2017	43713
3	2018	52749

The full query can be seen here

Annual Customer Activity Growth Analysis

Analysis :

From the results of the available data, the data starts from 2016 in September, so there is a difference in data from 2016 to 2017. The results of the analysis show that customers who repeat orders from 2017 to 2018 have decreased.

	years double precision 🔒	total_customer_repeat_order 🔒 bigint
1	2016	3
2	2017	1256
3	2018	1167

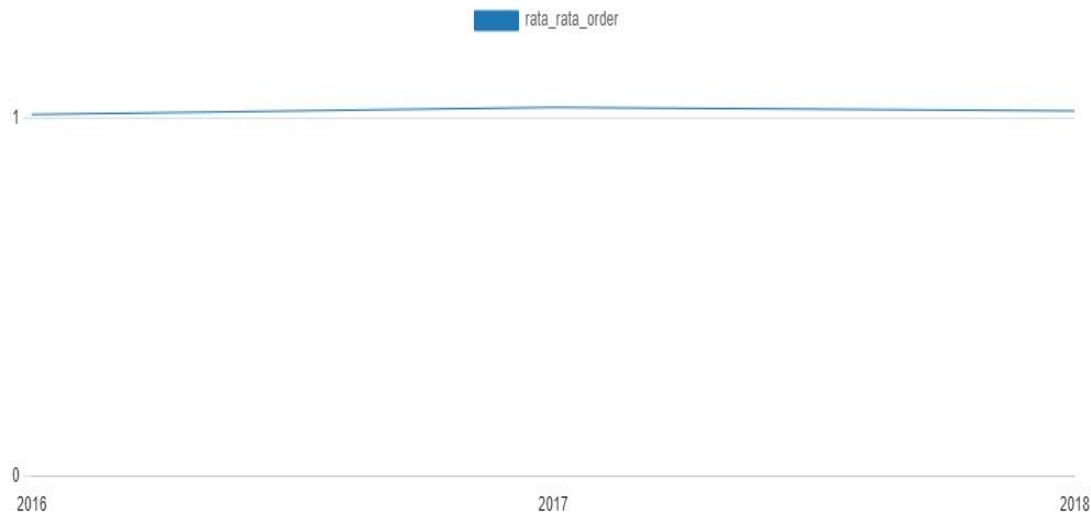The full query can be seen here
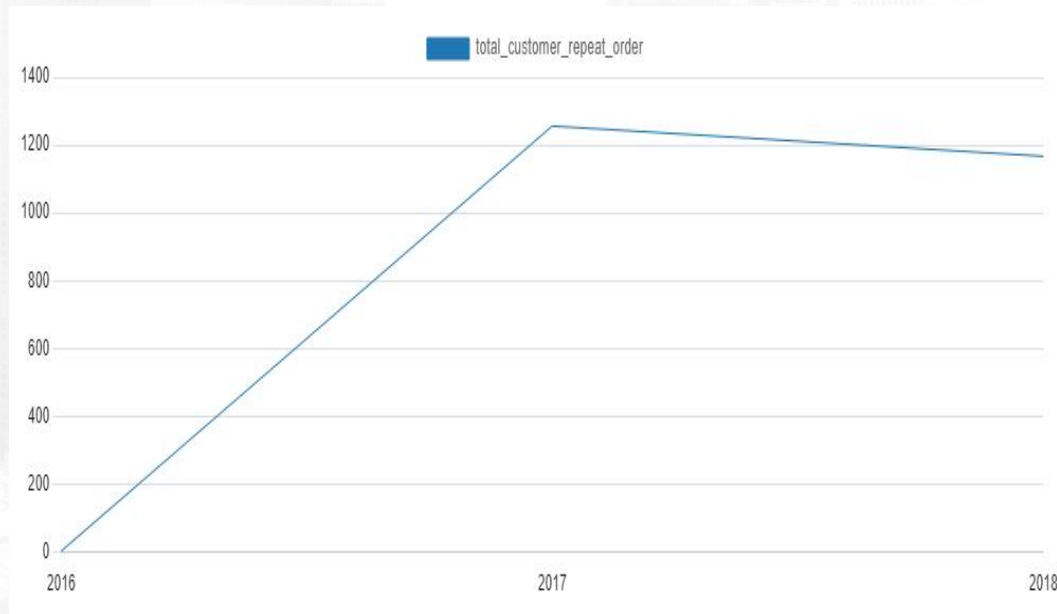
Annual Customer Activity Growth Analysis

Analysis :

The results of the analysis show that the average customer order from year to year is 1 order, so there is no increase or decrease.

	years double precision 🔒	rata_rata_order numeric 🔒
1	2016	1.01
2	2017	1.03
3	2018	1.02

The full query can be seen here

Annual Product Category Quality Analysis

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years double precision	top_product character varying	revenue_top_product numeric	revenue_per_year numeric	most_product_cancelled character varying	num_cancelled bigint	total_cancelled_per_year bigint
1	2016	furniture_decor	6899.35	46653.74	toys	3	26
2	2017	bed_bath_table	580949.2	6921535.24	sports_leisure	25	265
3	2018	health_beauty	866810.34	8451584.77	health_beauty	27	334

The full query can be seen here

Annual Product Category Quality Analysis

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Top Product	Revenue

2016

Furniture Decor — **$ 6899**

2017

Bed Bath Table — **$ 580.949**

2018

Health Beauty — **$ 866.810**

Analysis :

From this analysis, it can be seen that each year has a different top product and the following is the revenue of each product. From the revenue every year for the whole, we can see an increase in revenue.
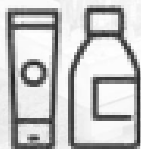
Revenue	
2016	**$ 46.653**
2017	**$ 6.921.535**
2018	**$ 8.451.584**

The full query can be seen here

Annual Product Category Quality Analysis

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Most Product | Canceled

2016

Toys

3 Unit

2017

Sport Leisure

25 Unit

2018

Health Beauty

27 Unit

Analysis :

From this analysis, it can be seen that each year has a different cancel order product and. From each year the overall cancel order we can see an increase.
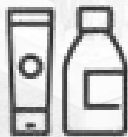
Canceled

2016	**26 Unit**
2017	**265 Unit**
2018	**334 Unit**

The full query can be seen here
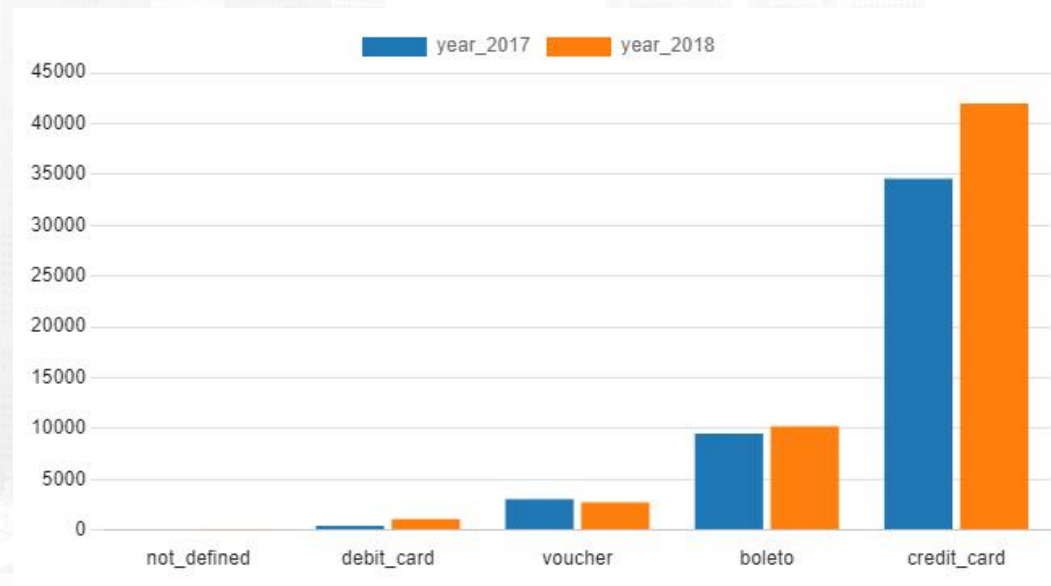
Analysis of Annual Payment Type Usage

	payment_type character varying	year_2016 numeric	year_2017 numeric	year_2018 numeric
1	not_defined	0	0	3
2	debit_card	2	422	1105
3	voucher	23	3027	2725
4	boleto	63	9508	10213
5	credit_card	258	34568	41969

The full query can be seen here

Analysis of Annual Payment Type Usage

Analysis :

As a result of the analysis, it can be seen that the most favorite payment is a credit card, and every year it increases. Then the use of vouchers has decreased. In debit cards, a significant increase is seen. maybe.

The full query can be seen here

Thanks You