DQLab Data Analyst Project

Business Decision Research

(DQLab Sport Center)

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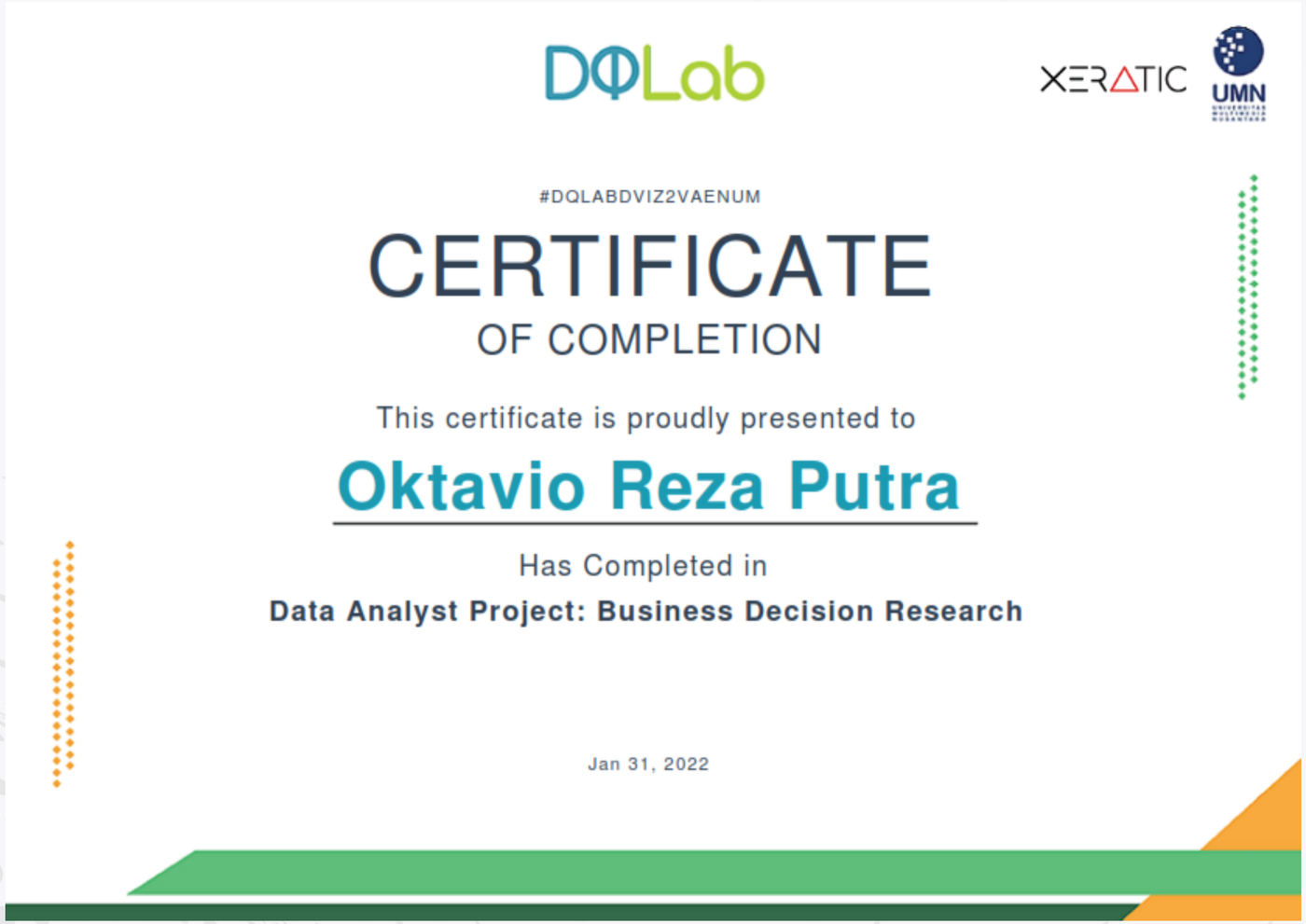
DATA ANALYST PROJECT : BUSINESS DECISION RESEARCH CERTIFICATE



WHAT IS THE PROBLEM IN THIS CASE ?

DQLab Sport Center is a shop that **sells various sports needs such as Jackets, Clothes, Bags, and Shoes**. This shop started selling in 2013, so it has had regular customers for a long time and is still trying to get new customers to this day.

In early 2019, the store manager recruited a Junior Data Analyst to help solve the problem at his store, namely the decline in customers who returned to his store. The Junior Data Analyst was also entrusted with processing the store's transaction data. **The store manager defines that a customer is no longer called a customer (churn) when they have not transacted to his store again up to the last 6 months from the last available data update.**

The store manager also provided transaction data from 2013 to 2019 in the form of CSV (comma-separated value) with data_retail.csv with 100,000 rows of data.

Database Link: **https://storage.googleapis.com/dqlab-dataset/data_retail.csv**

DΦLab

TOOLS

PYTHON 3.10

LIBRARY

pandas

matplotlib

NumPy

seaborn

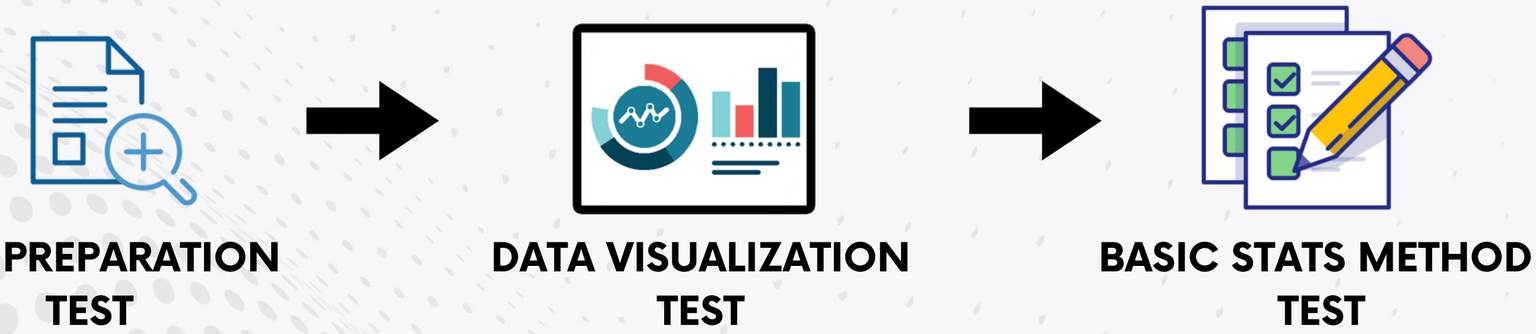
scikit learn

PROJECT PROGRESSION STAGES

Data preparation test
Importing data: Importing data_retail.csv to the python environment.
Cleansing data: Cleaning and modification of data so that it is ready to be used for further analysis.

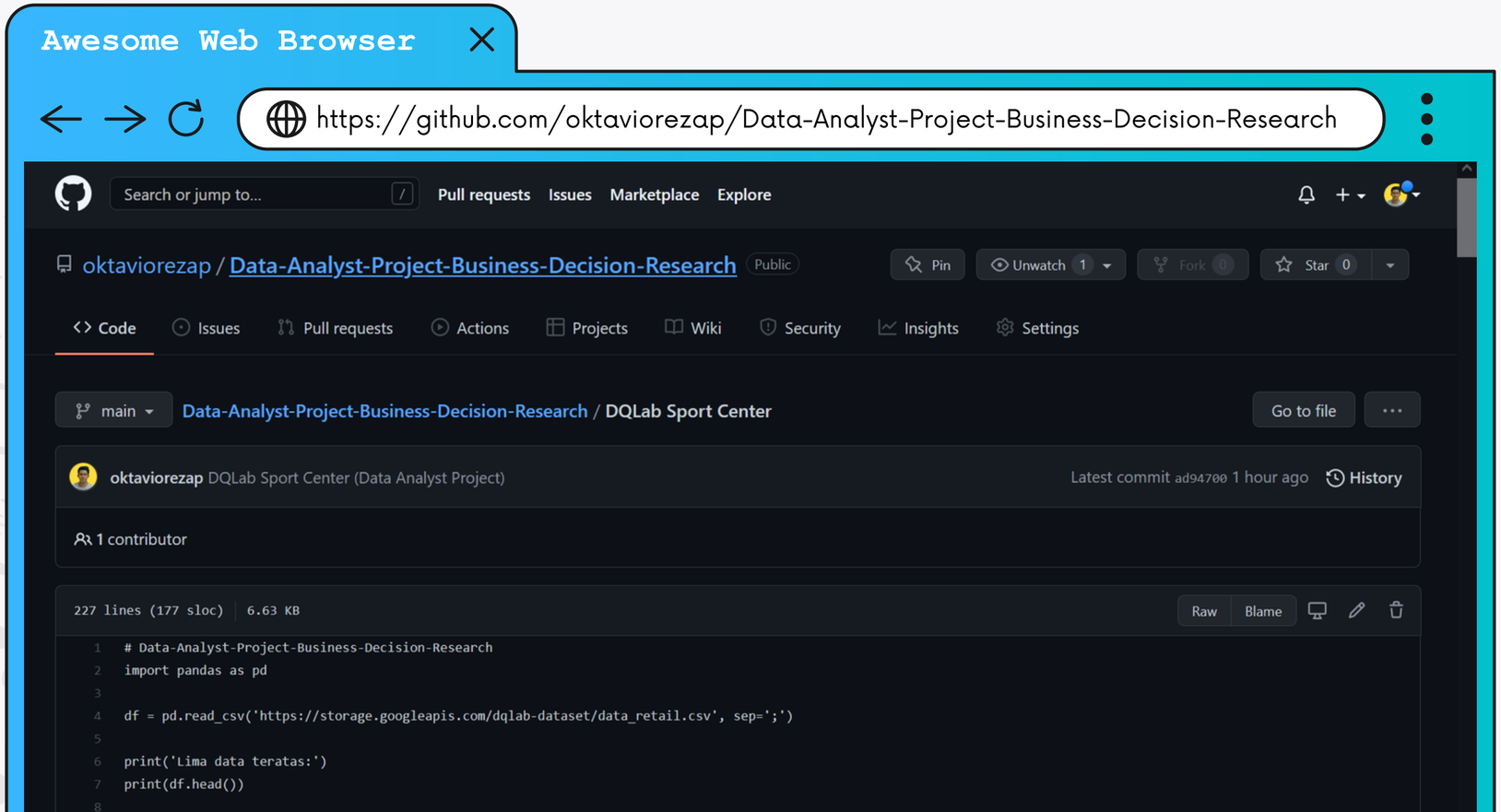
Data visualization test
Gain insight from the visualization results that have been created.

Basic stats method test
Gain insight from the model and evaluate the model that has been created and tested.

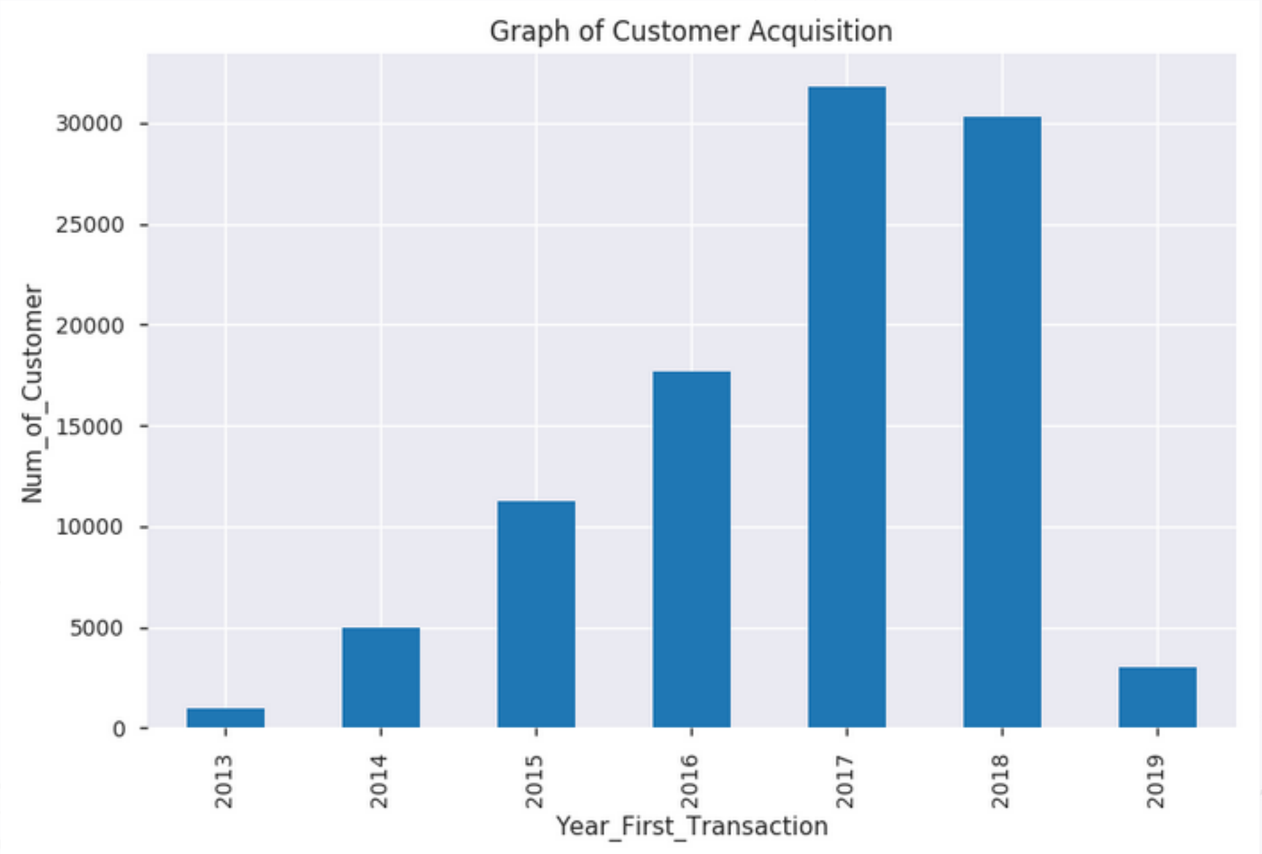


HOW CAN I ANALYZE THE DATA?

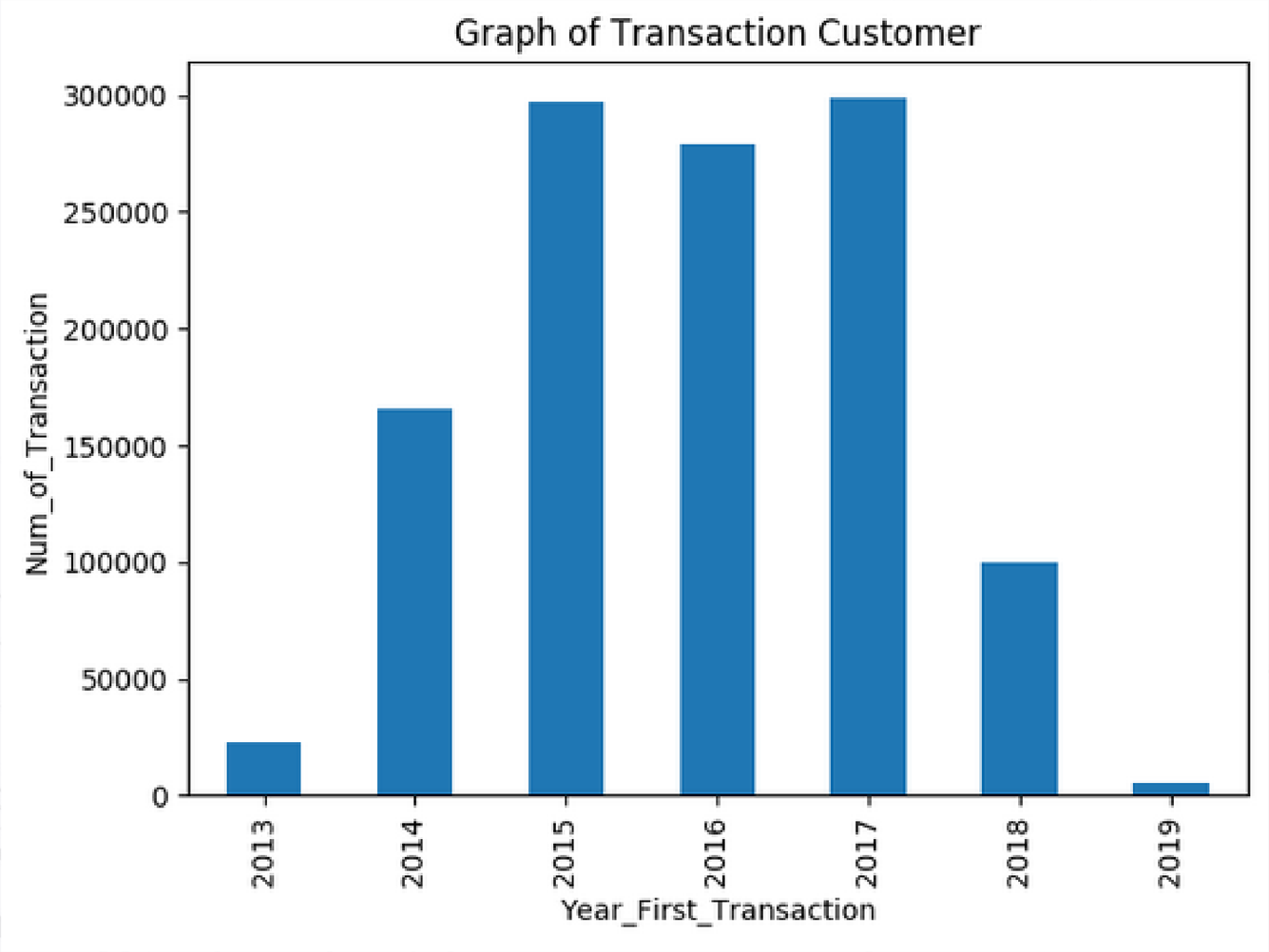
You can open my GitHub at this link below :
https://github.com/oktaviorezap/Data-Analyst-Project-Business-Decision-Research/blob/main/DQLab%20Sport%20Center



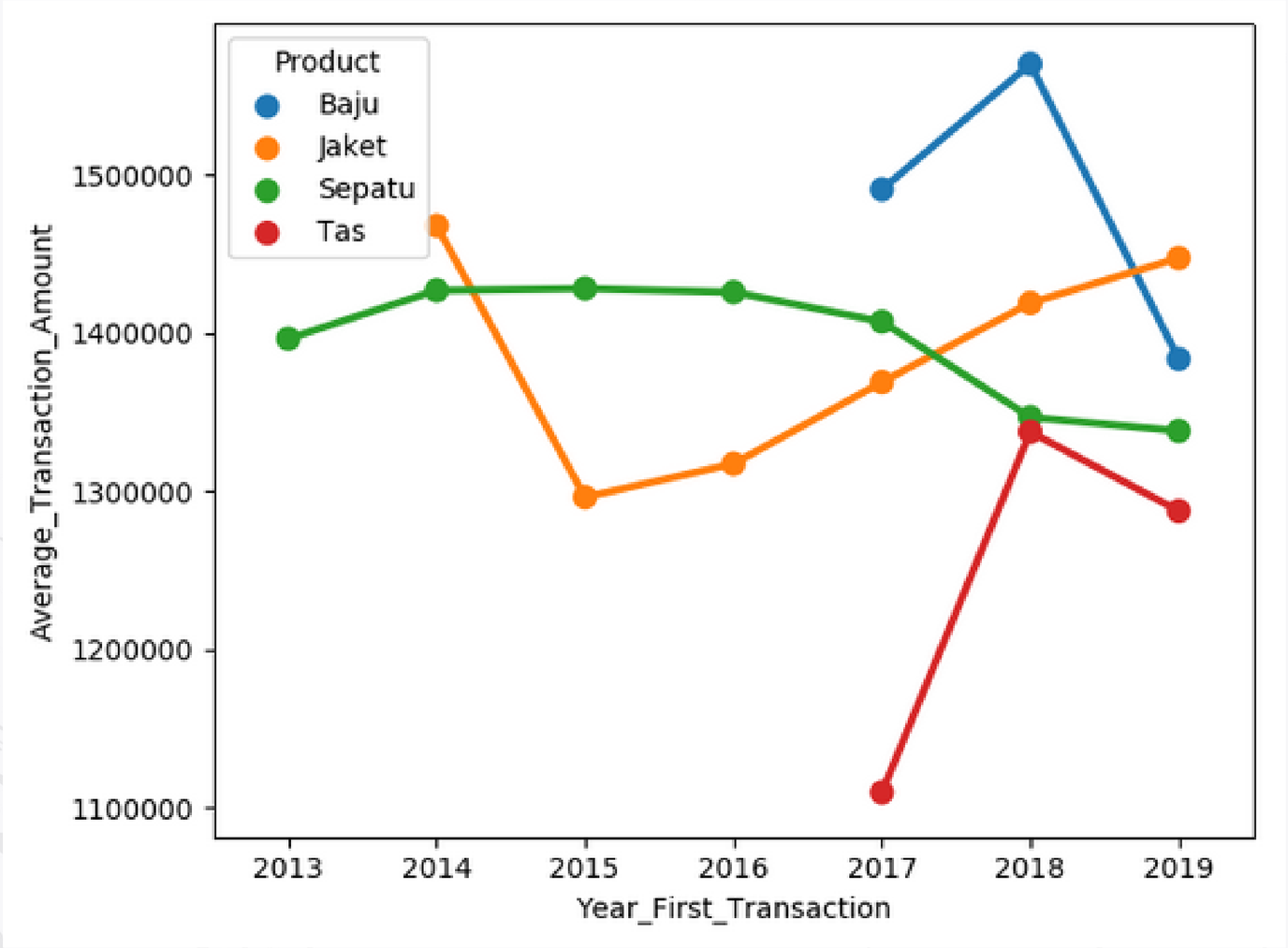
CUSTOMER ACQUISITION BY YEAR



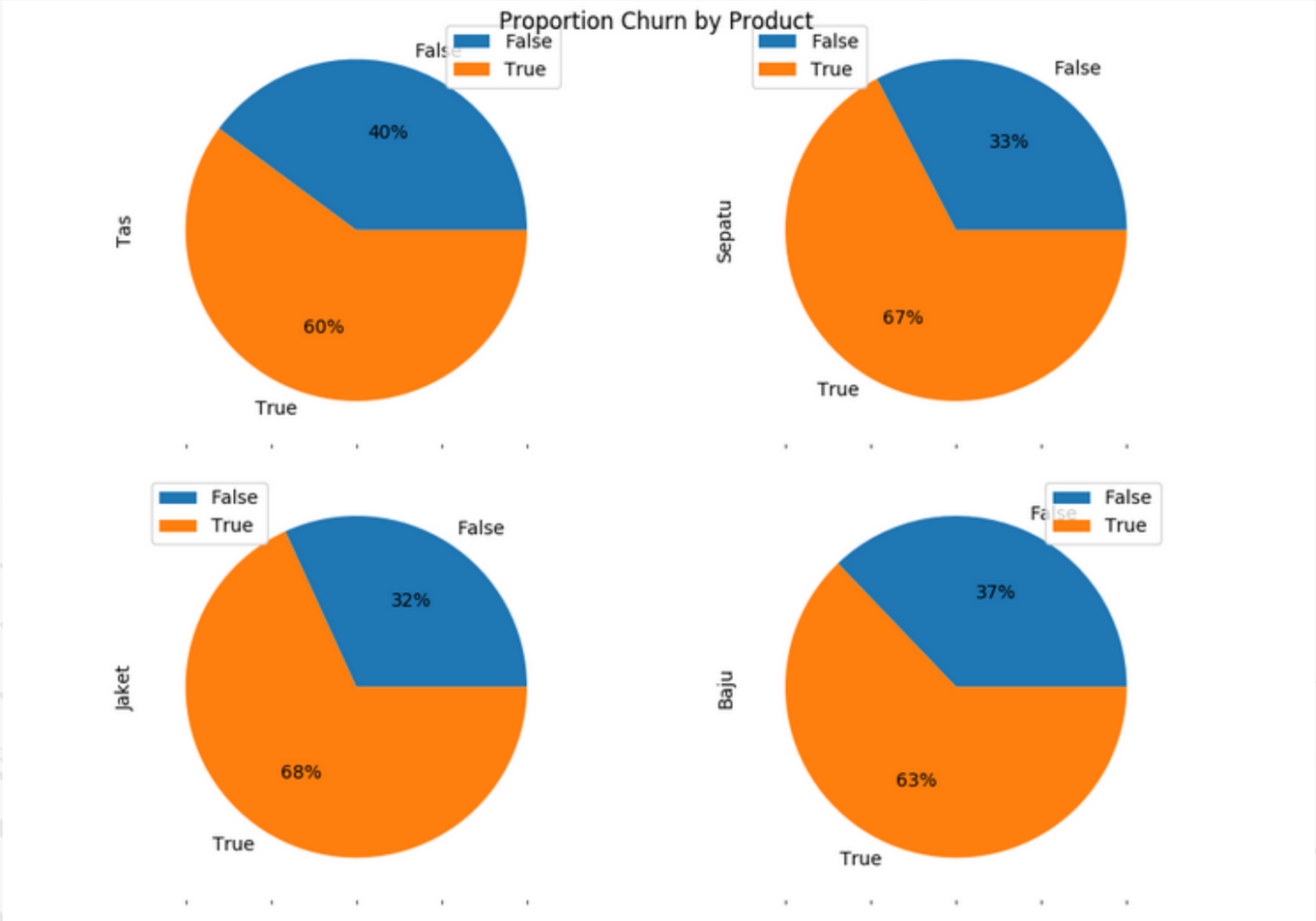
TRANSACTION BY YEAR



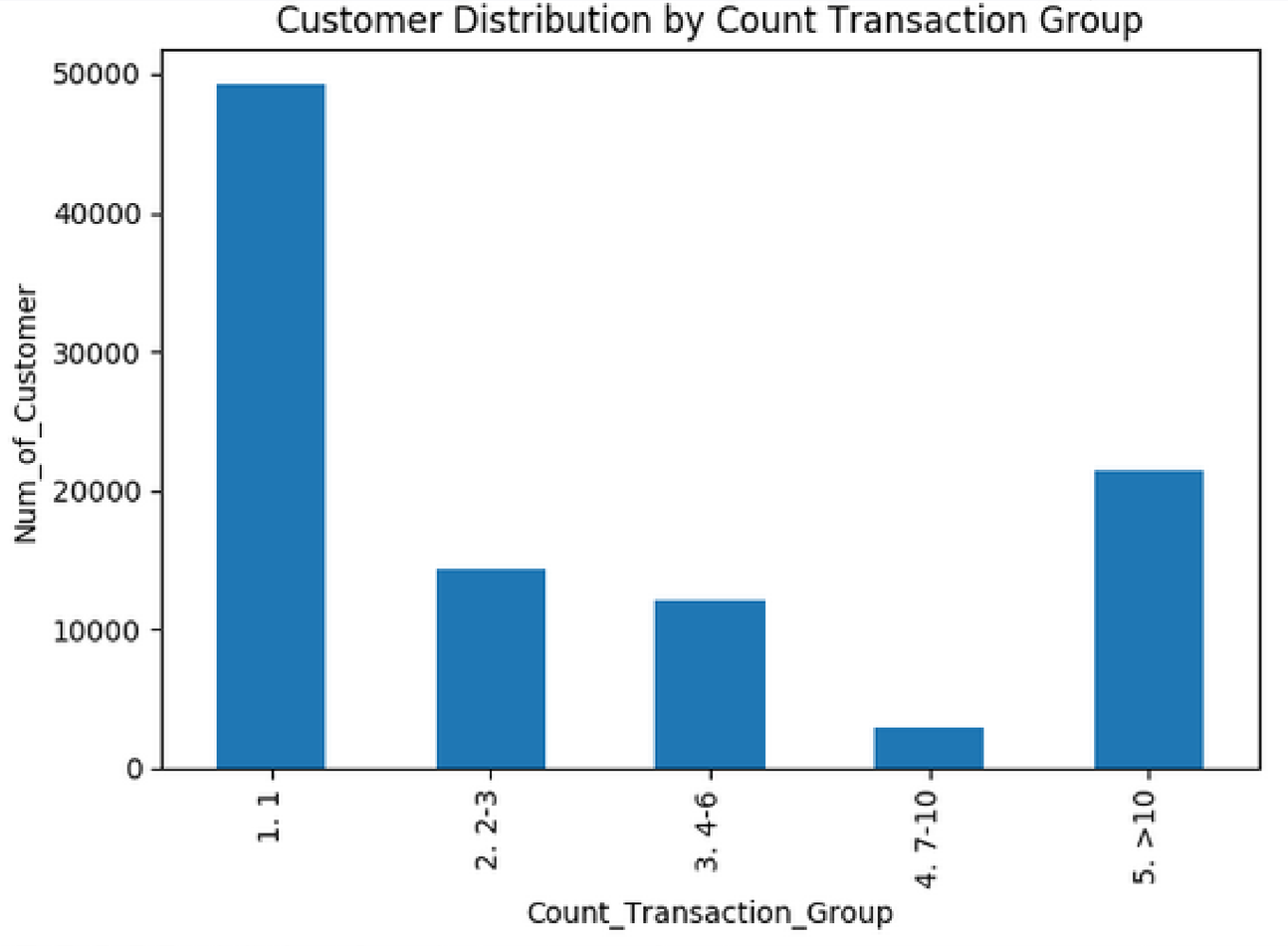
AVERAGE TRANSACTION AMOUNT BY YEAR



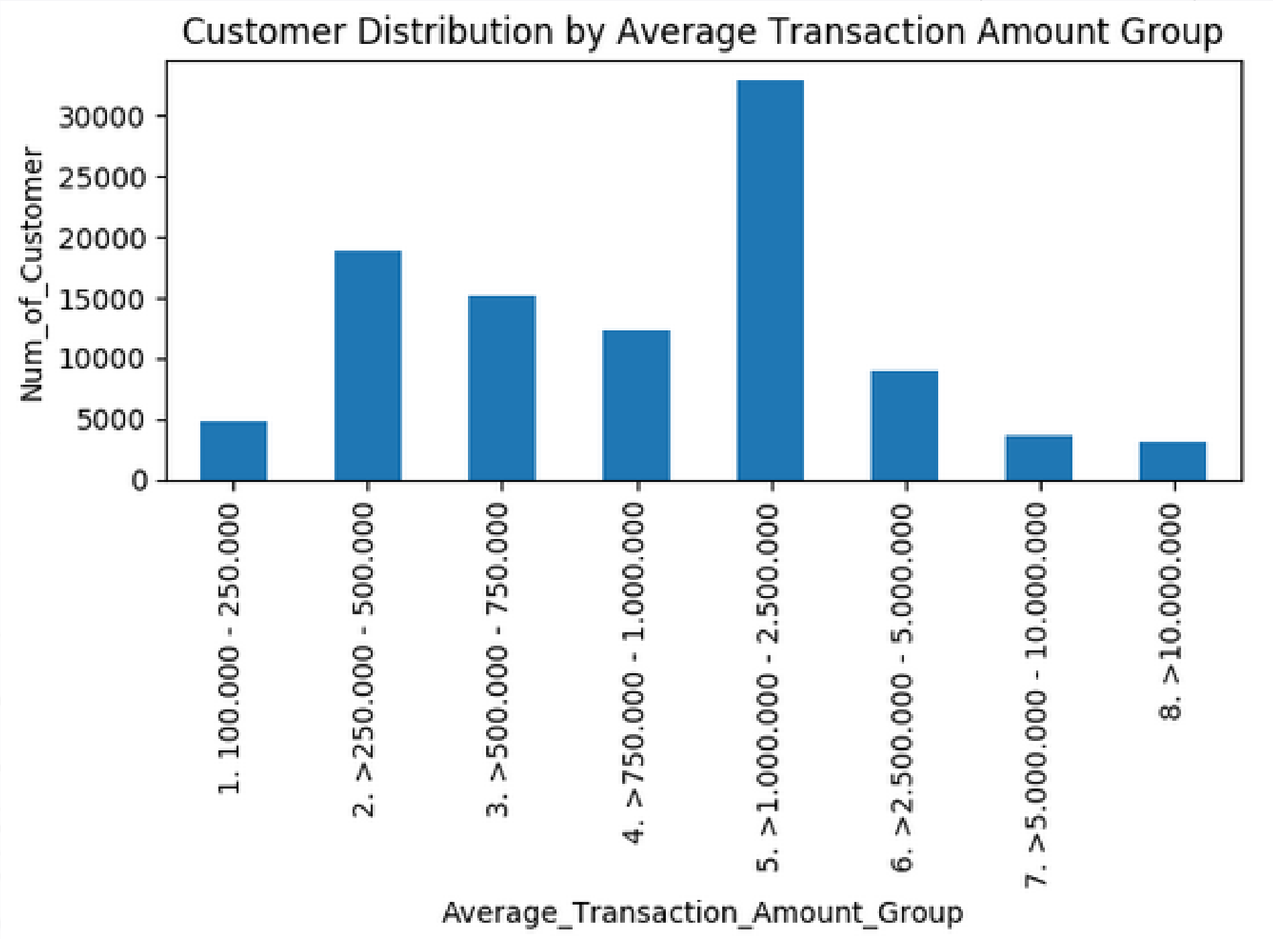
CHURNED CUSTOMER PROPORTION FOR EACH PRODUCT



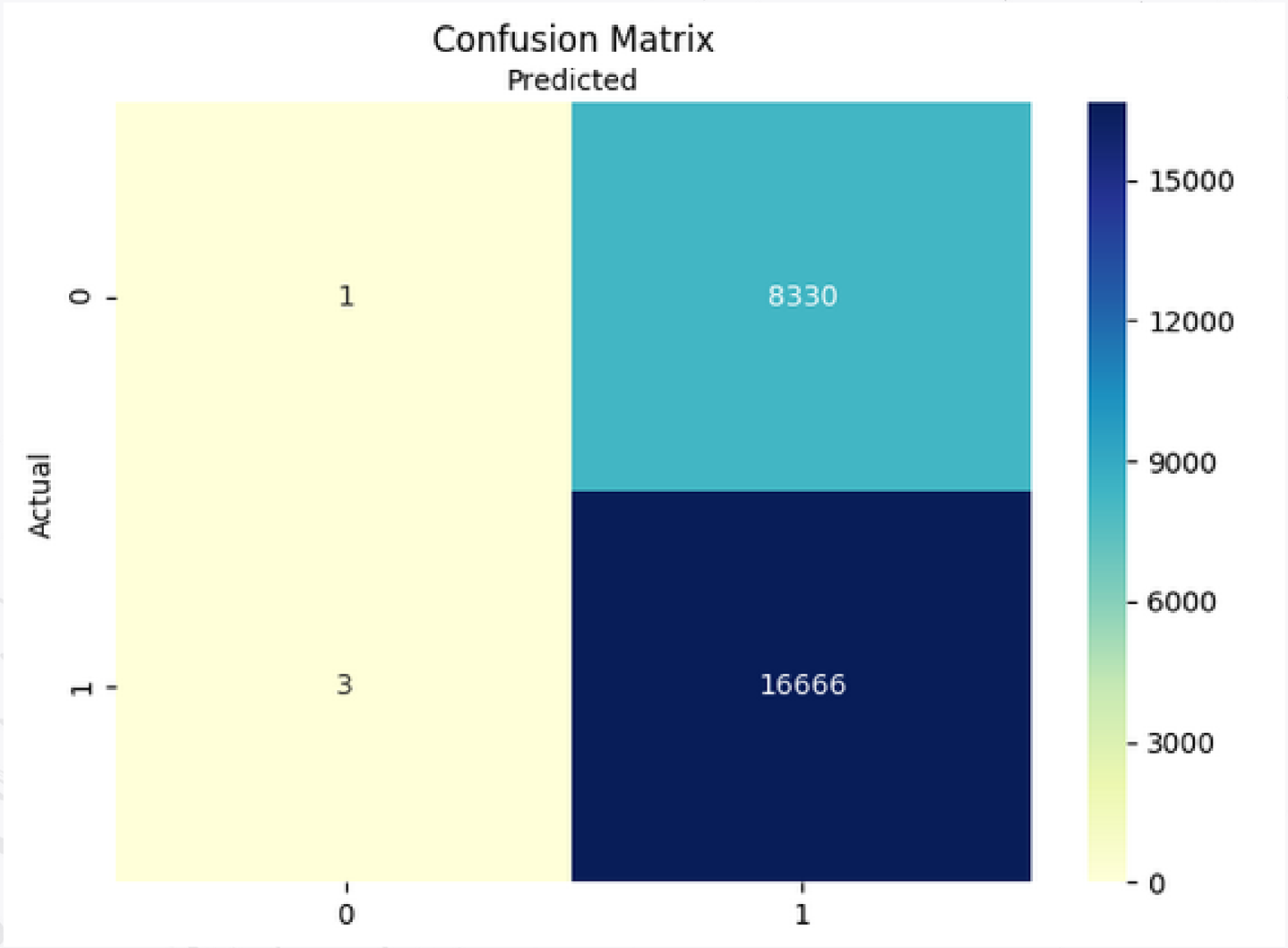
THE DISTRIBUTION CATEGORIZATION OF COUNT TRANSACTIONS



THE DISTRIBUTION CATEGORIZATION OF AVERAGE TRANSACTION AMOUNT



CONFUSION MATRIX VISUALIZATION



PROBLEM SOLVING

Based on Data Visualization about Customer Trend of DQLab Sport Center, I would like to give some useful solutions to increase customer acquisition and customer retention traffic : (assume that DQLab Sport Center has more funds for Digital Marketing and has some channels for Digital Marketing i.e social media ads, social media organic, mobile app, SEM, and SEO)

- Increase the content quality or design quality for social media ads and social media organic with trending topics about sport or "sport outfit" tutorial for Millenials that could enhance their self-confidence when they do sport activity outside i.e go to the gym, workout, jogging, etc.

- Increase the content quality and choose a suitable keyword that can reach new customers easily for SEO and SEM especially some keywords to find the products at DQLab Sport Center official website store

- Increase the Quality of Mobile app i.e more mobile-friendly, use UI and UX design

- Do some promos for each product (especially for shoe products because the lower trend is based on "Average Transaction Amount by Year" on page 9) to make customers do the transaction again at DQLab Sport Center

DQLab

Let's Collaborate!

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