

Customer Segmentation Using Python



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Madrid-Team 1

Business Requirement

Background

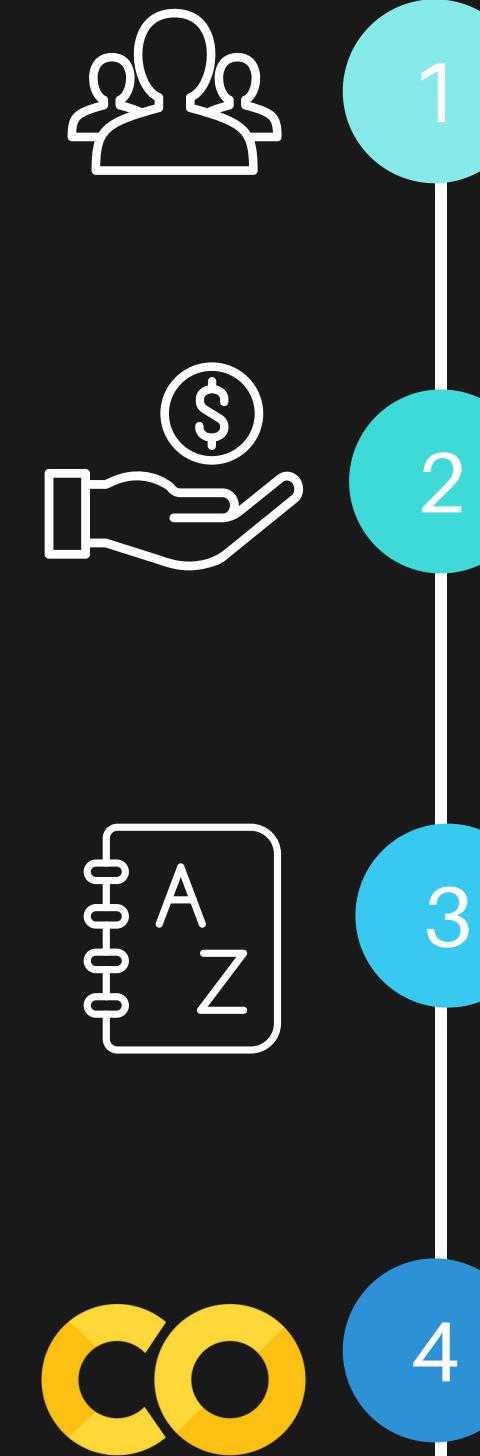
An Indonesian investment start up which makes an application that can buy and sell mutual funds. The mutual funds consist of : stocks mutual funds (saham), bond mutual (pendapatan tetap), money market mutual funds (pasar uang), and mixed-investment mutual funds (campuran).

Objective

Our objective is to analyze the data in order to identify trend and group of user based on their demographic and transaction in each mutual funds. By understanding user segmentation, we can **find appropriate thematic campaign to the marketing team** in the next month.



LINK TO DATASET



[>>Link to User Dataset <<](#)

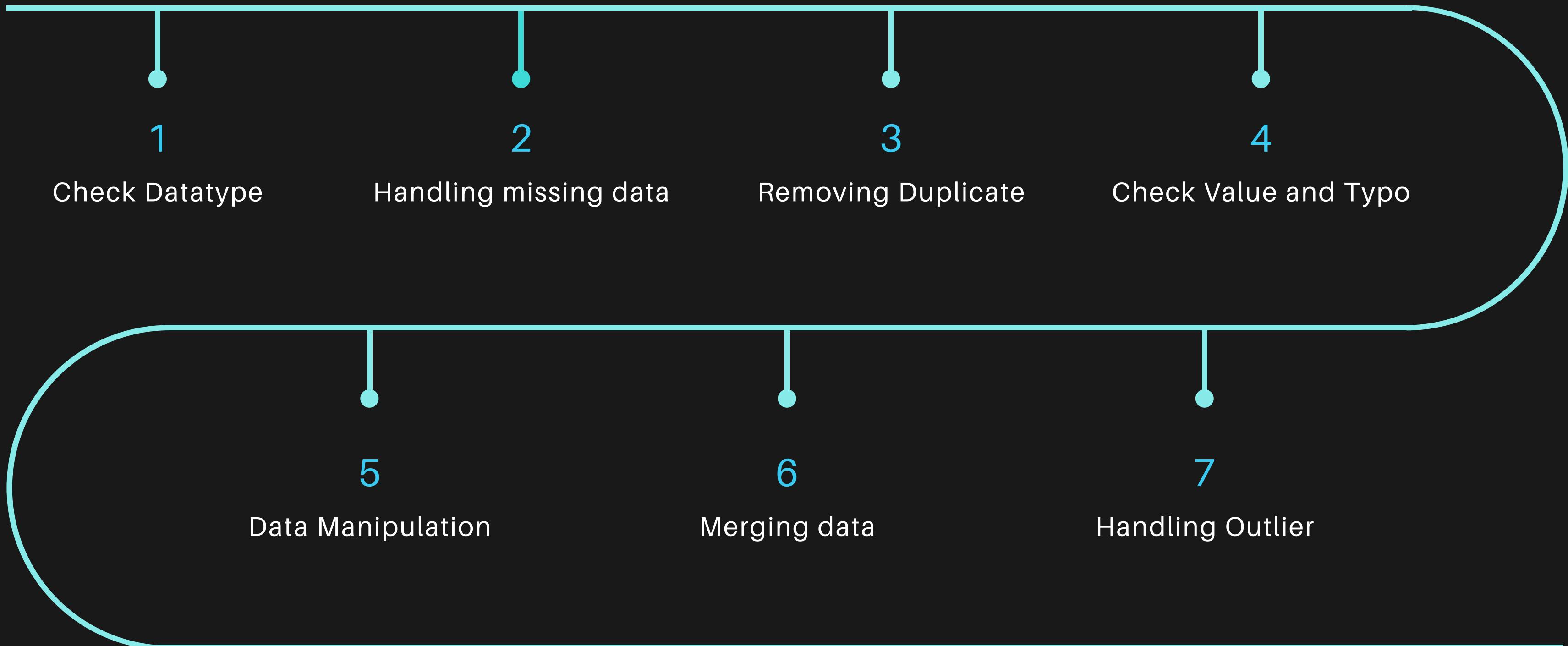
[>>Link to Transaction Dataset <<](#)

[>>Link to Data Dictionary Dataset <<](#)

[>>Link to Google Colaboratory <<](#)

Data Cleaning Process

There are 2 dataset will be analyzed which are user and daily_user_transaction



For detail explanation about cleaning data please open [the Google Colab link](#)

Customer Profile



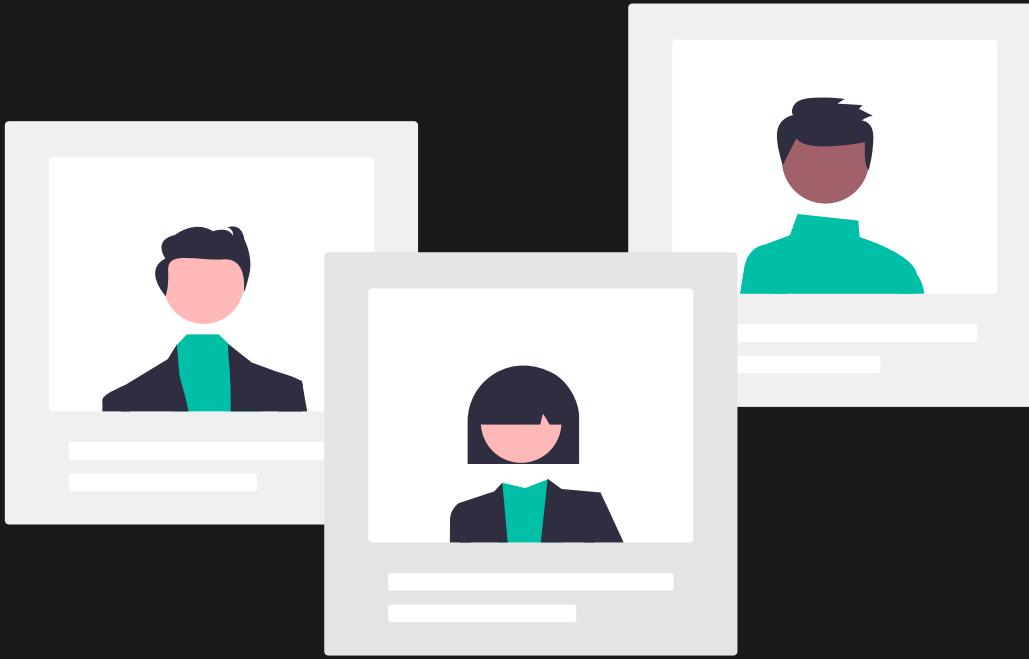
INCOME SOURCE

The majority income source from our customer is **salary** with the range less than 10 million/ month



FAVOURITE INVESTMENT

Our customer preffered using bond mutual fund than other funds



NUMBER OF CUSTOMER

We have 8.277 active customer with 61% Male, 39% Female where the majority at the age of 17-26



TREND OF PRODUCT

In the period of September to August the trend of customer buying our product is increasing while the the trend of customer selling is more less



INVESTED AMOUNT

Currently the total invested amount has more than 21 billion rupiah.

Customer Segmentation

We do a segmentation to our customer and divided them into 3 cluster



Aggressive
Investor



Moderate
Investor

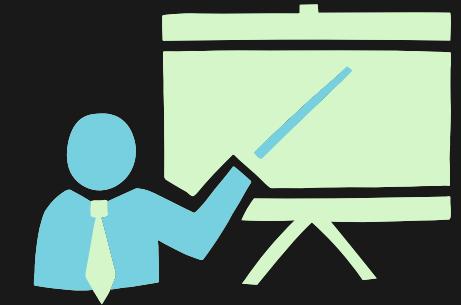


Conservative
Investor

Aggressive Investor



For Aggressive investor, we have **889** customer or 10% from total customer with total transaction dominated by **54% of Male** customer. The majority of this customer belongs to Boomers at the **range age of 39-83**.



The majority occupation of the customer in this cluster are from **private employees** who rely on **Salary** as the income source with **income range 10-50 million**.

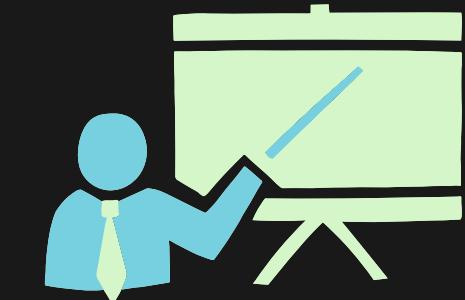


On average this cluster spend 3,744,470 with maximum investment are 452,950,000 and from this cluster the **customer have invested 3,328,834,023**

Moderate Investor



For Moderate investor, we have **4881** customer or 60% from total customer with total transaction dominated by **61% of Male customer**. The majority of this customer belongs to GenZ at the **range age of 17-26**



The majority occupation of the customer in this cluster are from **students** who rely on **Salary** as the income source with income range **under 10 million**.

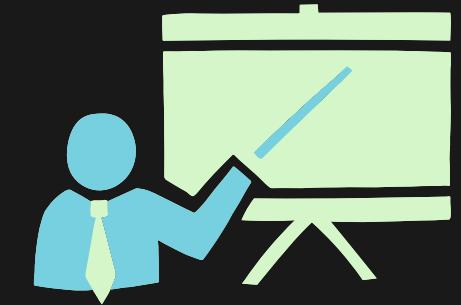


On average this cluster spend 499,356 with maximum investment are 350,000,000 and from this cluster **the customer have invested 2,437,361,242**

Conservative Investor



For Conservative investor, we have **2507** customer or 30% from total customer with total transaction dominated by **64% of Male customer**. The majority of this customer belongs to Millenials at **the range age of 27-38**



The majority occupation of the customer in this cluster are from **private employees** who rely on **Salary** as the income source with income range **10-50 million**.



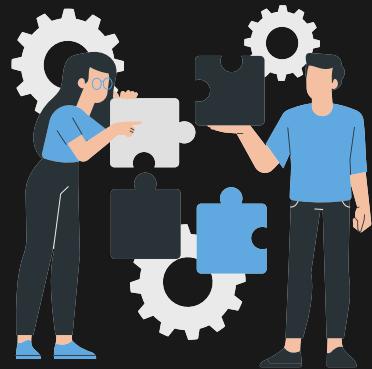
On average this cluster spend 2,645,542 with maximum investment are 799,500,000 and from this cluster **the customer have invested 6,632,374,144**

Thematic Campaign

After we create a segmentation it is shown that the majority of customer are **Moderate Investor** and majority of investment money comes from **Conservative Investor**.



Since the majority of the customer are students or GenZ at the range age of 17-26 providing **a free education session** about the importance of investment, financial planning and strategies to achieve financial freedom will trigger them to invest in the earlier age



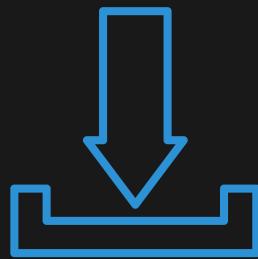
Promote the easeness in investing in our apps because we've collaborate with some financial service. **Giving cashback** for the first investment and for the customer that invest above average.

Campaign Strategy

In order to ensure that our marketing campaign is success we need a metrics to measure the success of our strategy.



Engagement : measures the level of interaction and interest in the campaign.



Conversion rate : measures the percentage of customers who took a desired action, such as investing in the fund or signing up after campaign



Brand awareness : measures the level of recognition and familiarity with the our company.

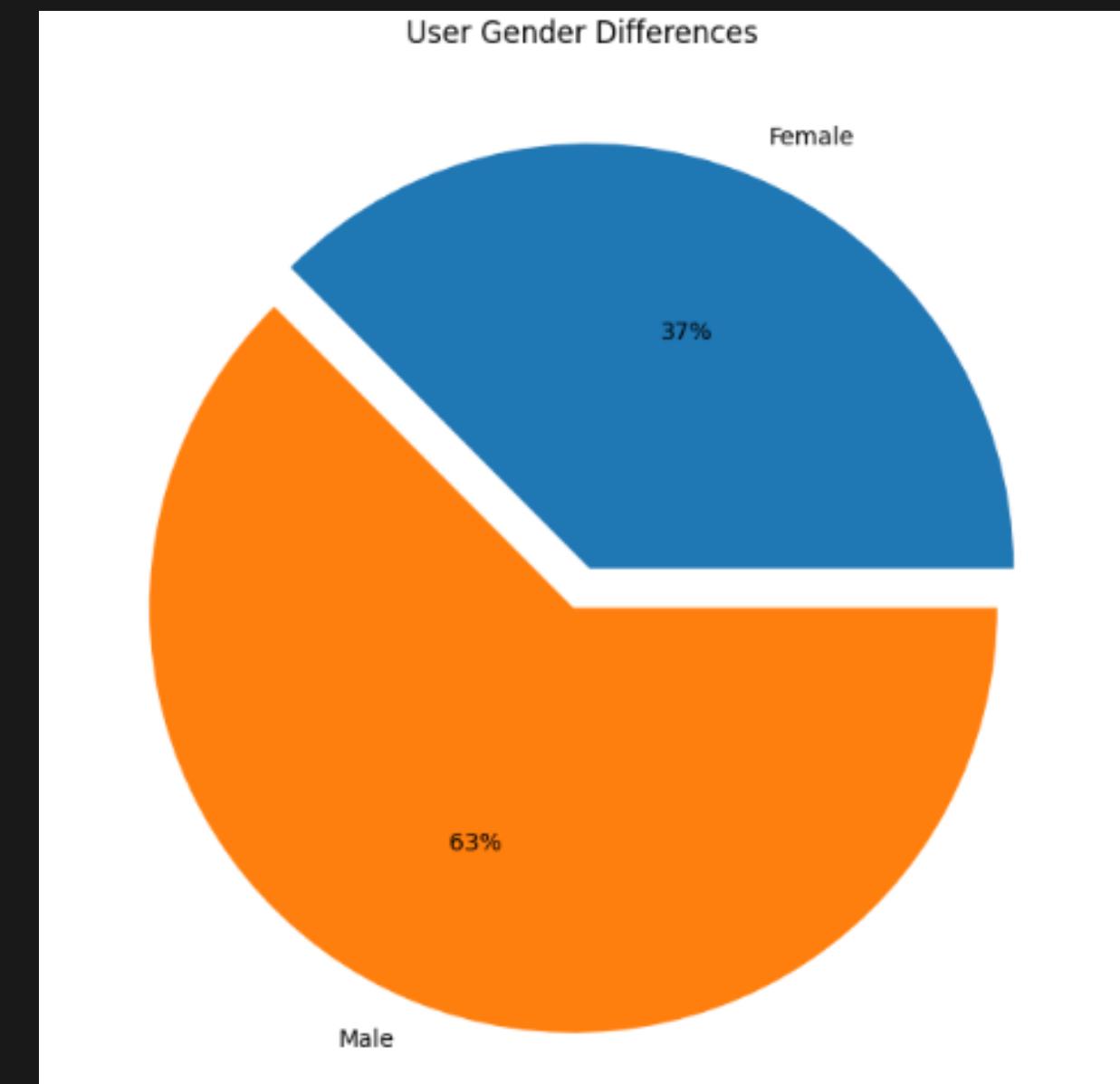
APPENDIX

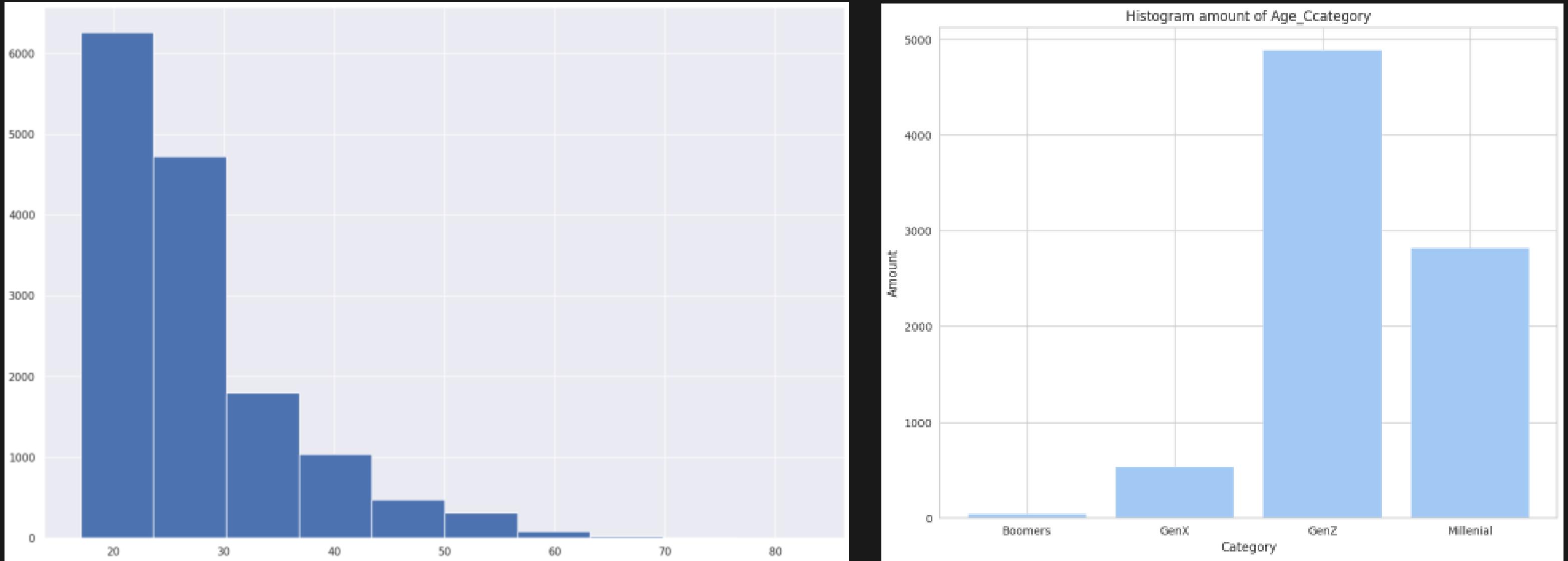
This section will show the result of EDA by using python (Google Colaboratory)

Percentage of gender Customer

There are 5735 (39%) female user

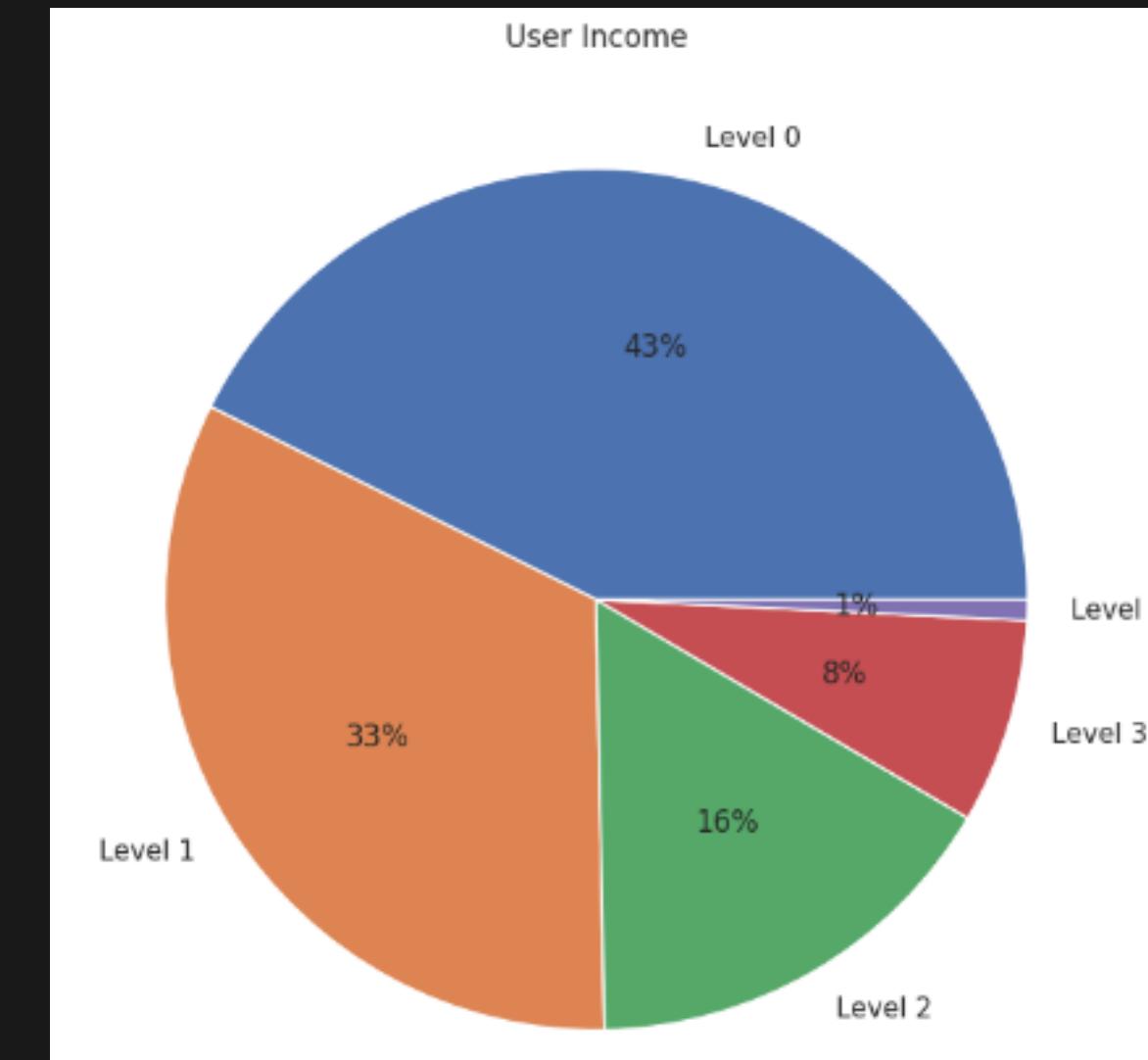
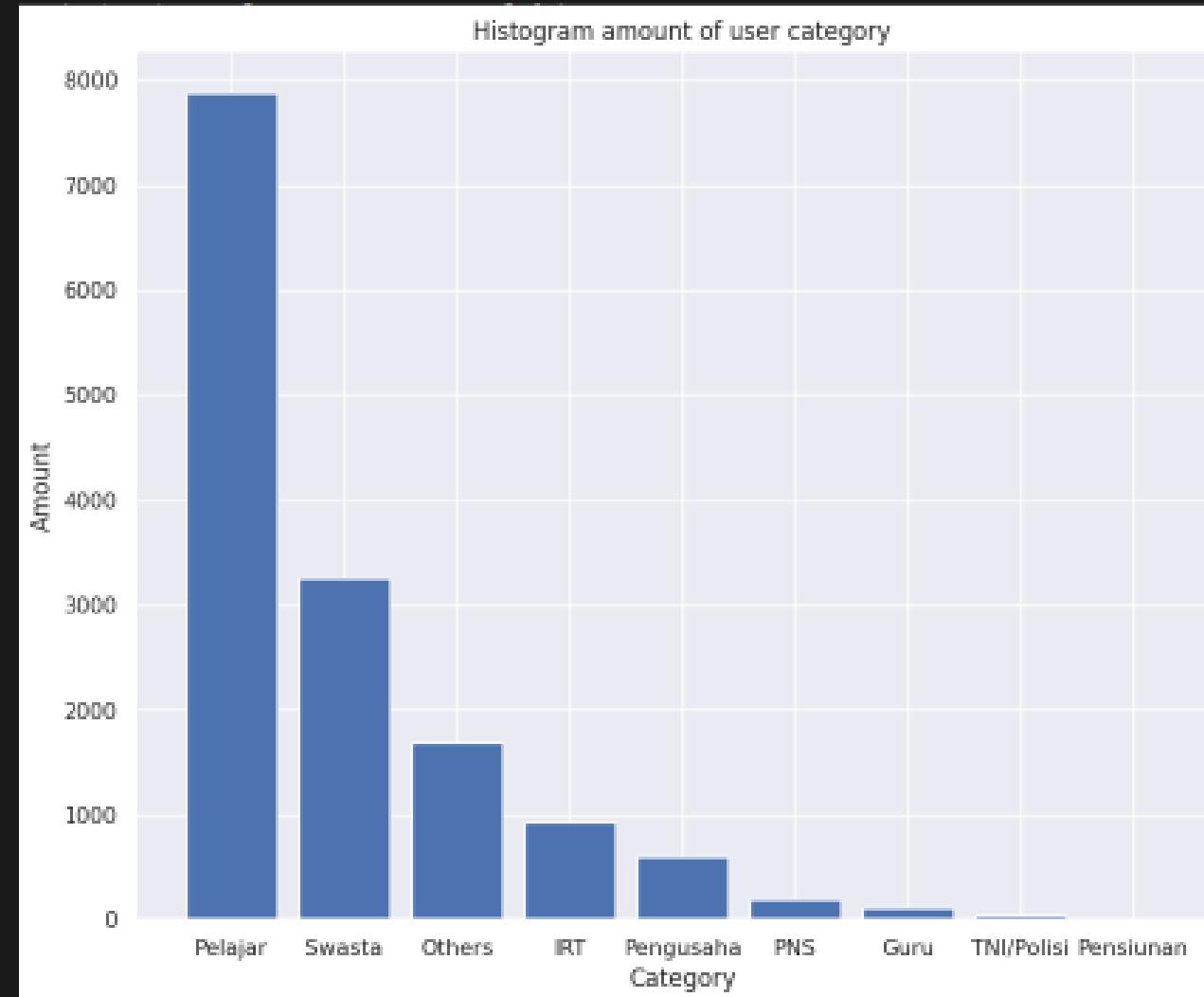
There are 8977 (61%) male user





Percentage of age customer

The majority of our customer are GenZ who are at the range age of 17-26



Percentage of customer occupation and income range

The majority of our customer are students and followed by private employee with the income <10

- Categorizing the user income into 4 level

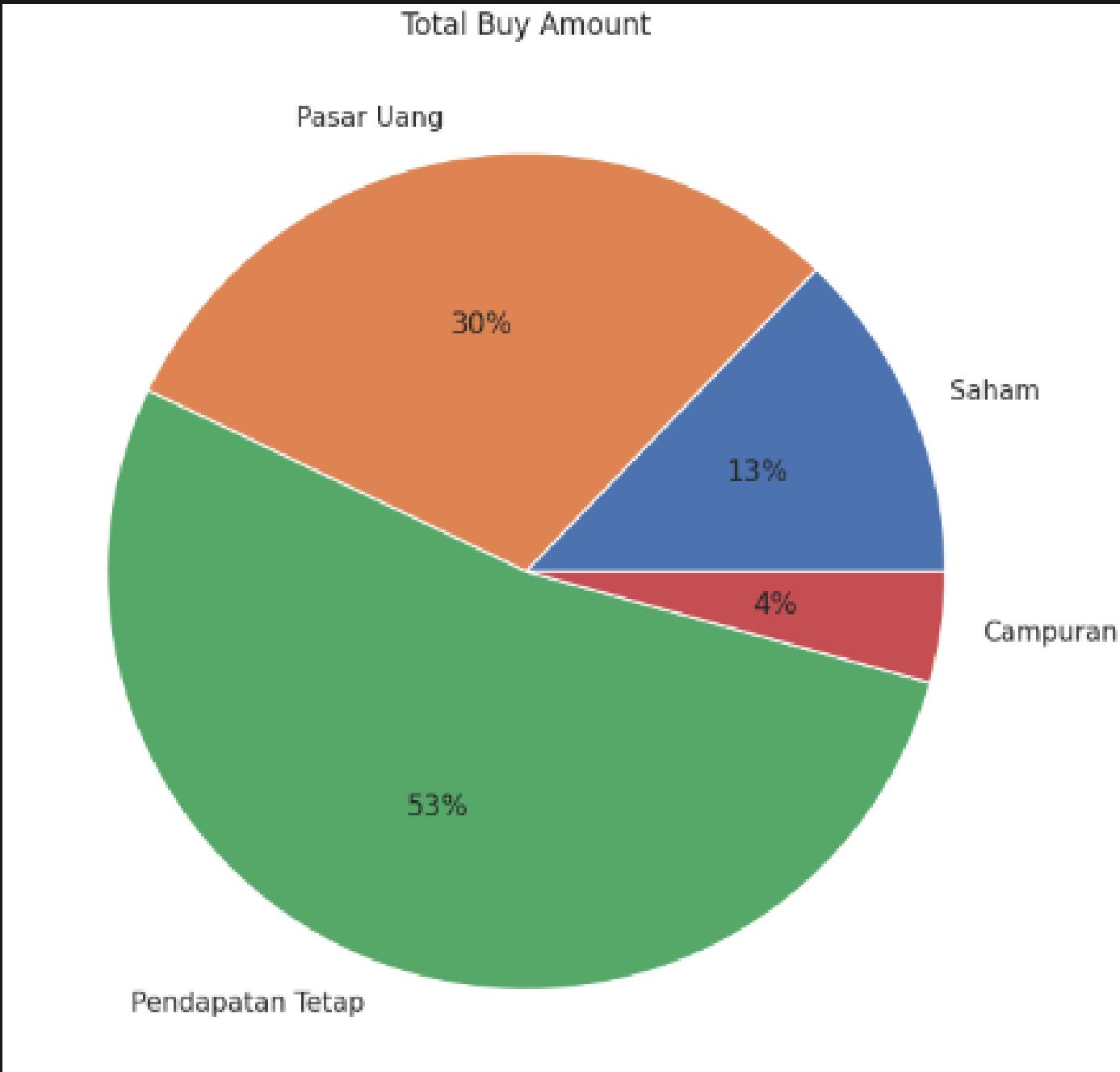
Level 0 : <10 jt

Level 1: >10-50jt

Level 2: >50 -100jt

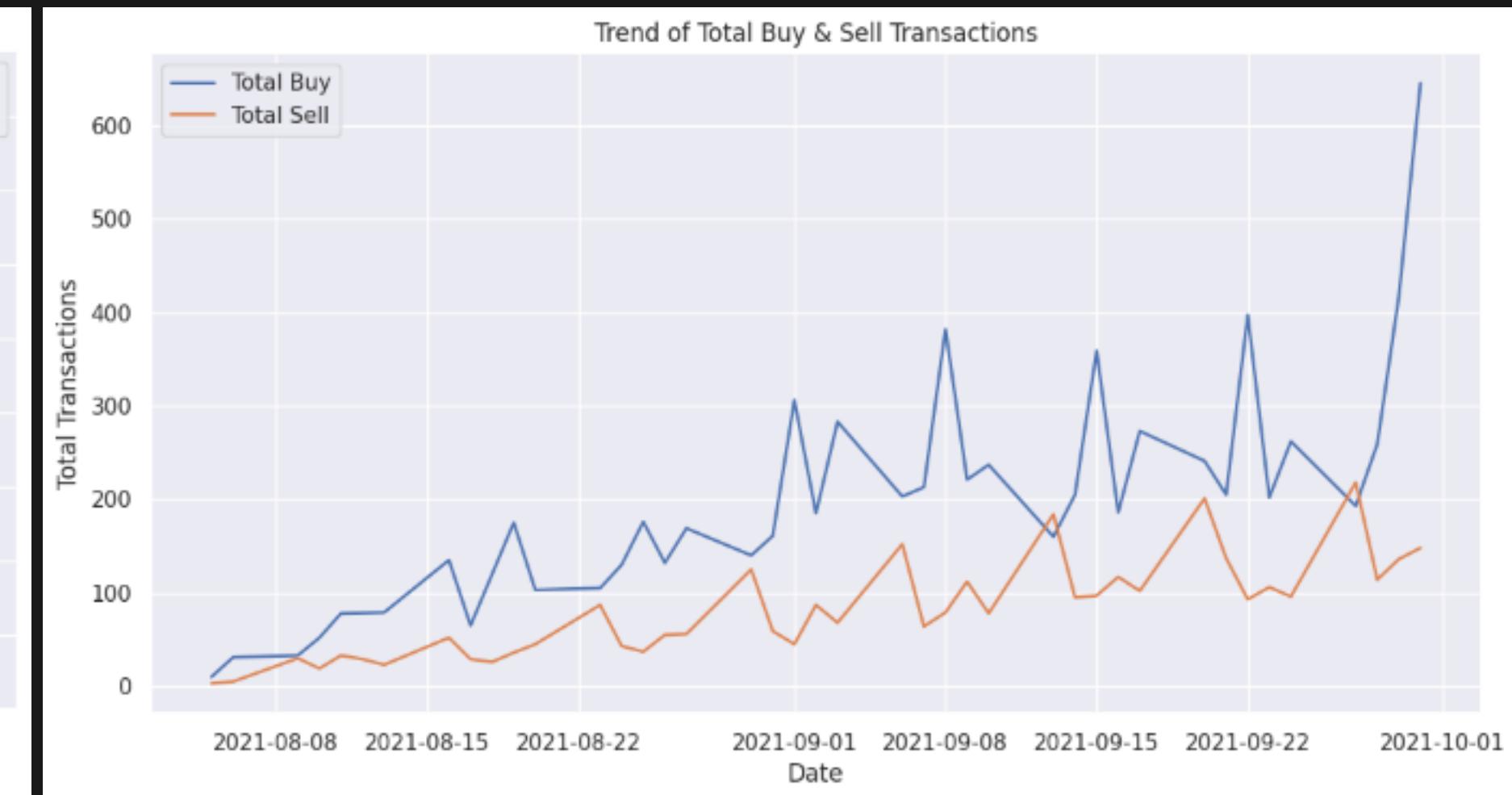
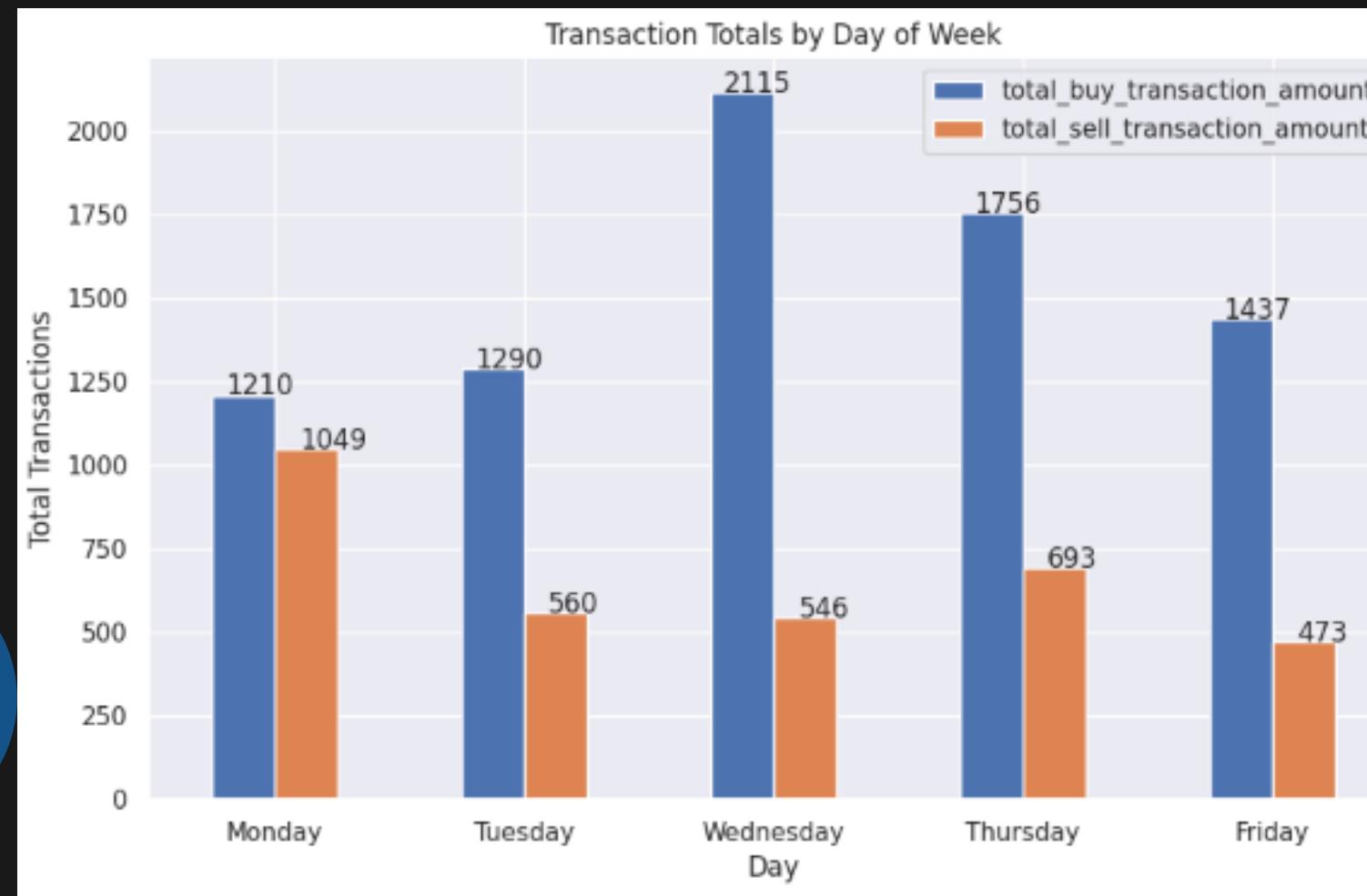
Level 3: > 500jt-1M

Level 4: >1M



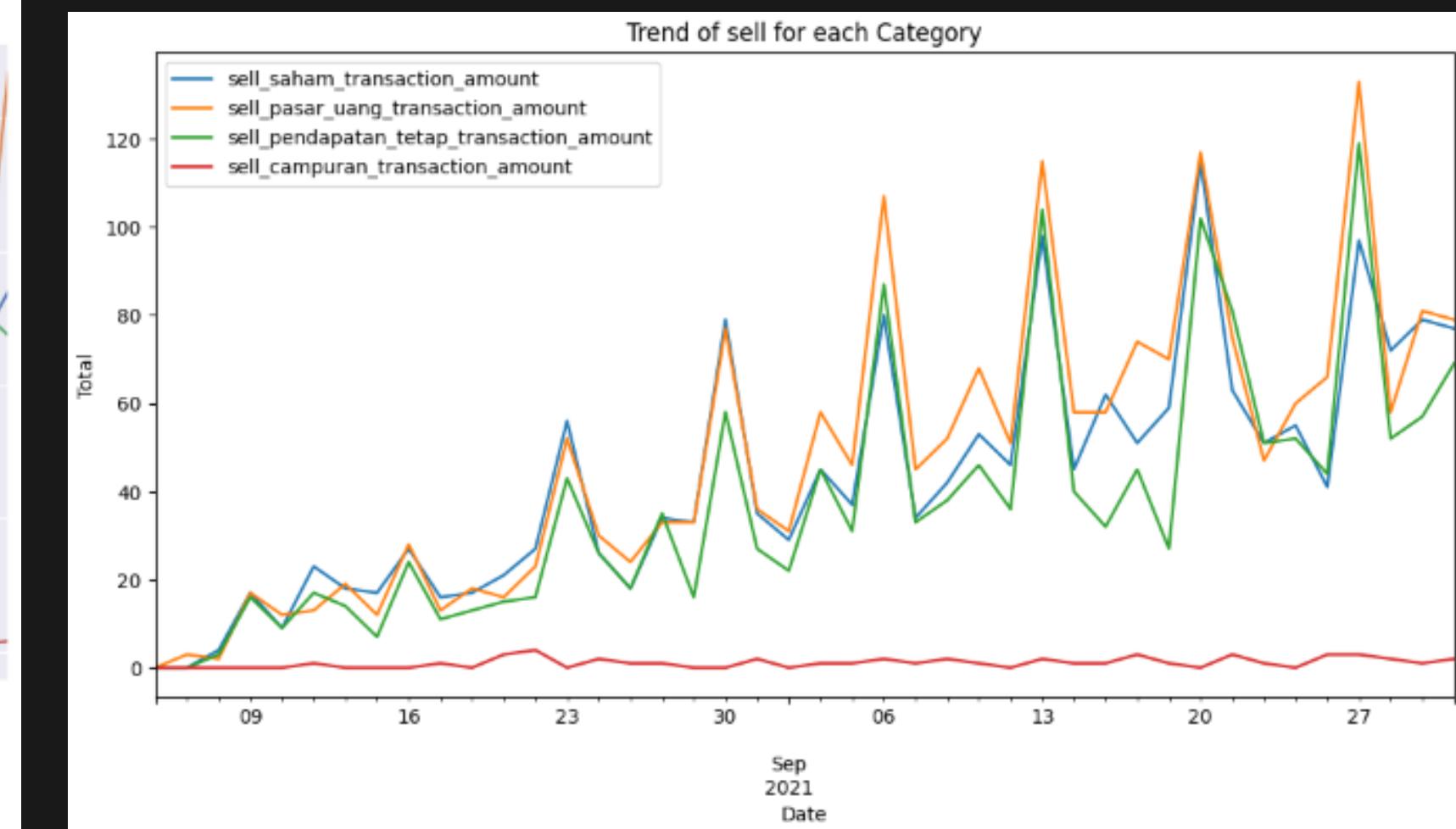
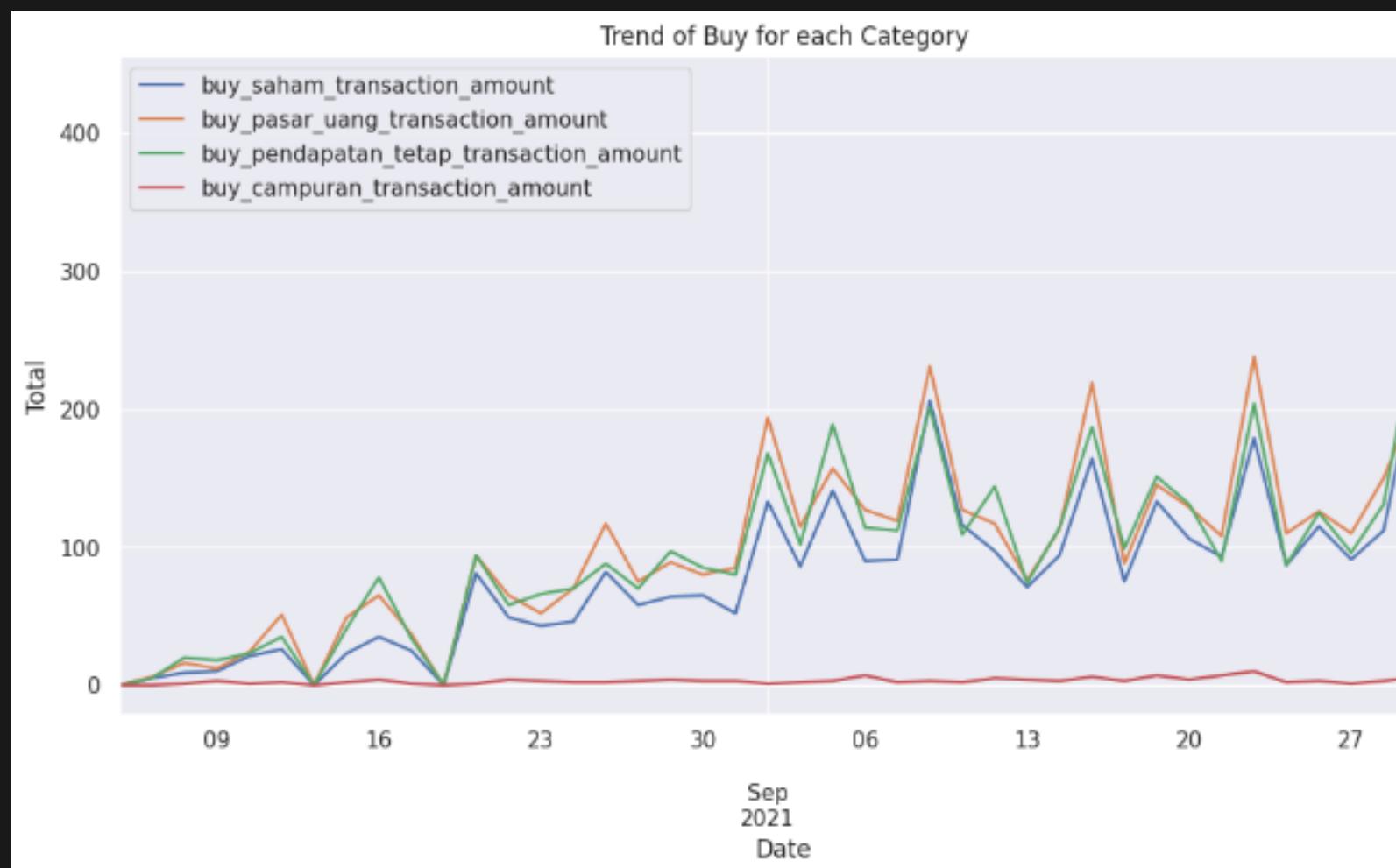
Percentage of product bought by customer

- Total buy Amount for overall product is 12,398,569,409 billion
- Total sell Amount for overall product is 2,425,462,774 billion
- The dominant product that user by is Pendapatan tetap and the lowest product that buy by user is Campuran



Buying and selling trend

- The highest number of buying transaction are occurred in Wednesday with total transaction 2115.
- the highest number of selling transaction are occurred in monday with total transactipon 1049 transaction.
- The number of buying transaction are increasing from monday to wednesday and decreasing from thursday to friday.
- The number of selling transactions are fluctuating but it is increasing.
- The total amount of buy and sell is increasing so that the trend is positive



Buying and selling trend for each product

- The total amount of buy transaction in saham, pasar uang and pendapatan tetap tend to same line but in the end the transaction of pasar uang is highly increase
- However the amount of campuran has the lowest trend and the trend is stagnant
- The total amount of sell transaction in saham, pasar uang and pendapatan tetap are tend to the same line but the trend is fluctuating
- However the amount of campuran has the lowest trend and the trend is stagnant

Thank you

