

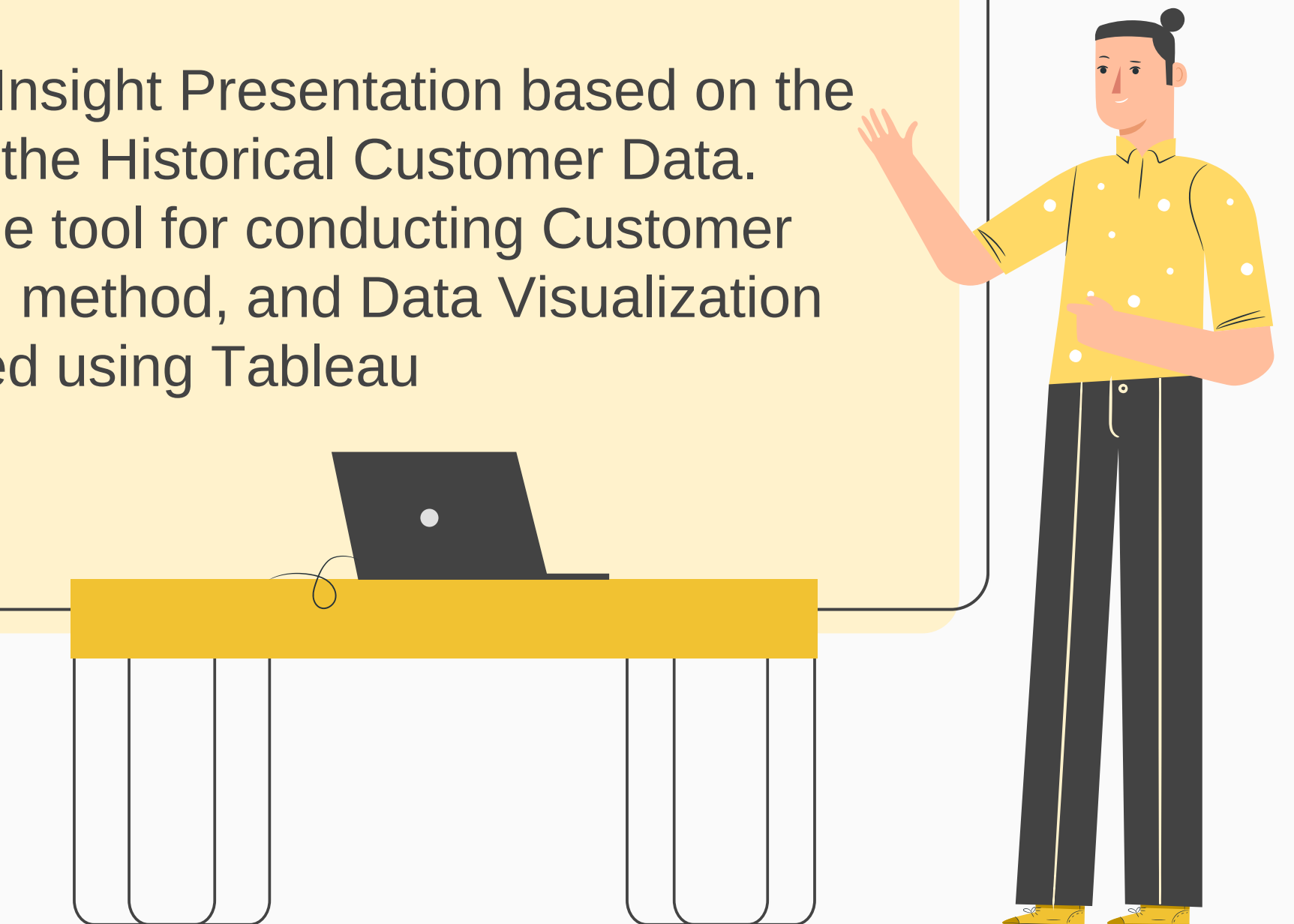
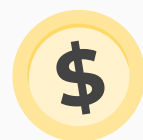
Final Project Data Engineer

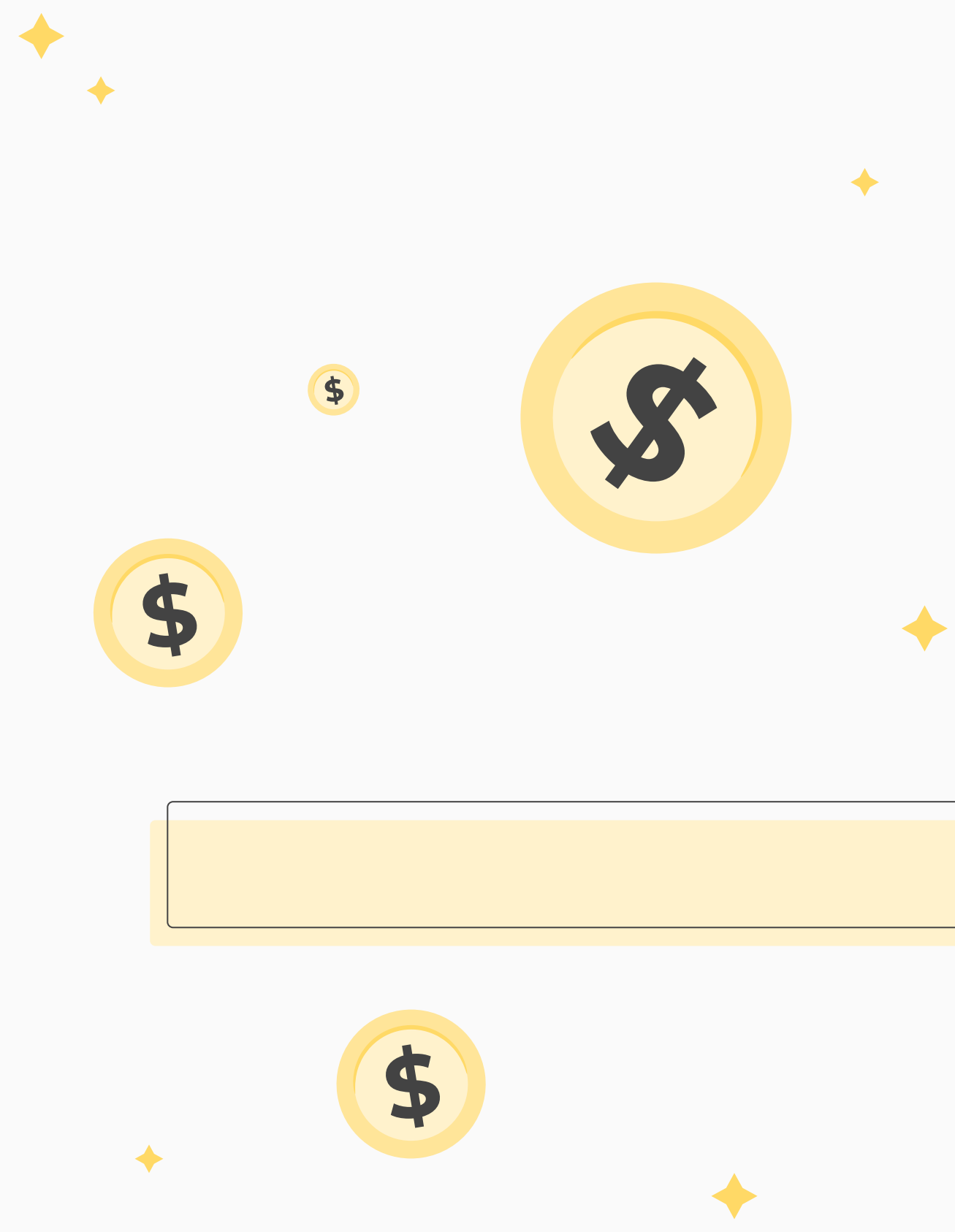
BTPN Syariah
Nandana Rifqi Irfansyah



INTRODUCTION

This Final Project involves an Insight Presentation based on the provided dataset, which is the Historical Customer Data. PostgreSQL was used as the tool for conducting Customer Segmentation using the RFM method, and Data Visualization was performed using Tableau





“The issue arises when the bank experiences a decline in customers due to many abandoning their credit card services. In this case, there is a need for customer profiles that exhibit a tendency to leave the service, allowing proactive steps to be taken to encourage customers to resume using their credit card services”

CASE STUDY

01. BUSINESS OBJECTIVE



BUSINESS OBJECTIVE



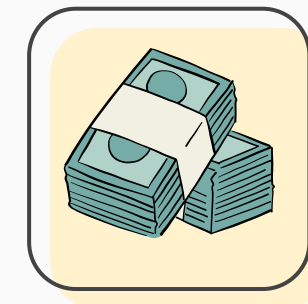
CUSTOMER PROFILE

Investigate the factors contributing to customer churn, considering customer demographics such as gender, age, marital status, education, and income.



TRANSACTIONAL PATTERNS

Evaluate customer transactions, including credit card usage, overall transaction amounts, and transaction frequency, to understand their impact on churn dynamics



BANK ENGAGEMENT ANALYSIS

Assess the customer's interactions with the bank by analyzing the duration of inactivity and the frequency of the bank's outreach over a year. Understanding these patterns can provide insights into the likelihood of customer churn.

02. DATA EXPLORATORY



DATA EXPLORATION

	clientnum numeric 🔒	idstatus numeric 🔒	months_inactive_12_mon numeric 🔒
1	769152783	2	6
2	803115258	2	6
3	807587433	2	6
4	787339158	2	6
5	795599883	2	6
6	804829533	2	6
7	816013383	2	6
8	770220558	2	6
9	827451333	2	6
10	809849358	2	6
11	716282208	2	6
12	817977933	2	6
13	708563433	2	6
14	712378983	2	6
15	712611108	2	6
16	772394883	2	6

SEARCHING FOR THE MOST RECENT TRANSACTION DATE FOR EACH CUSTOMER

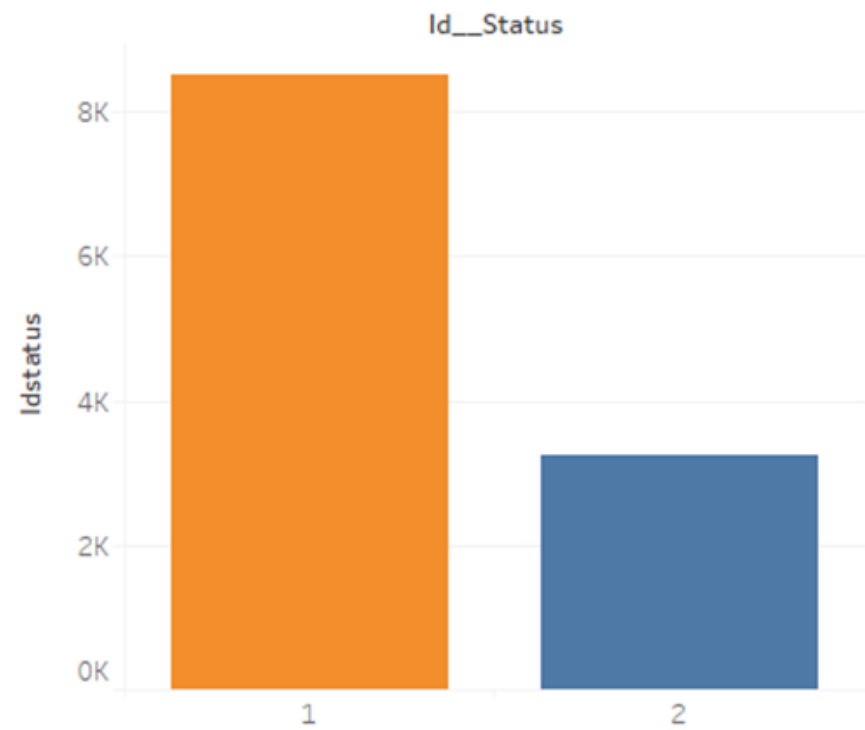
Identifying features containing information about the latest customer transactions involves examining the "Months_inactive_in_12_month" feature. Ordering the data based on the most frequent number of months yields results as depicted in the image.

QUERY

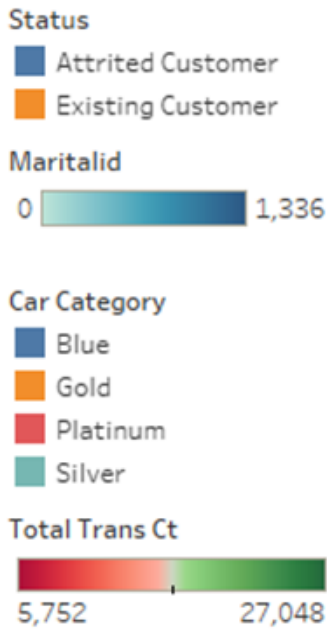
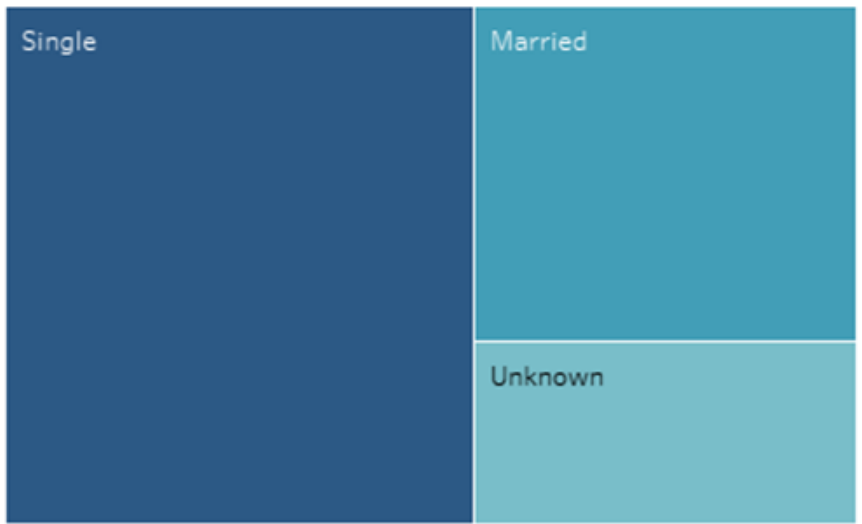
```
SELECT clientnum, idstatus, months_inactive_12_mon
FROM customer_data_history
WHERE idstatus = 2
ORDER BY months_inactive_12_mon DESC;
```

VISUALIZATION DATA

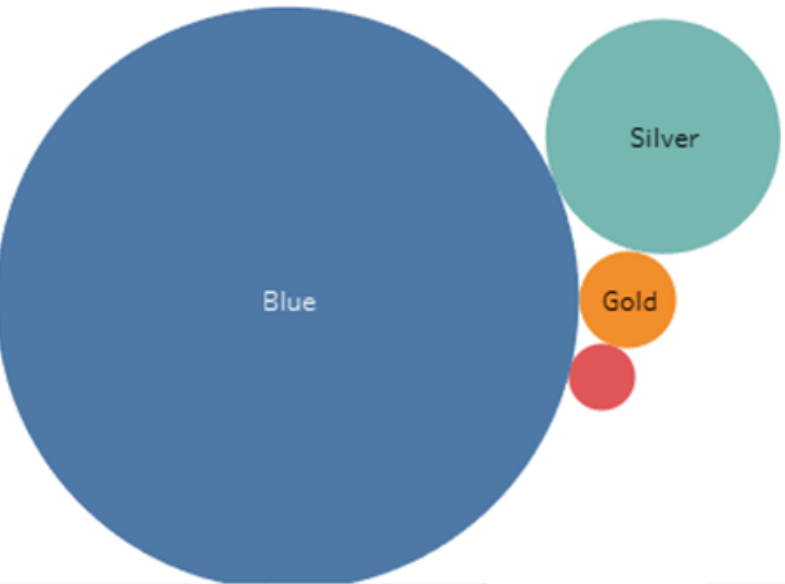
Customer Status



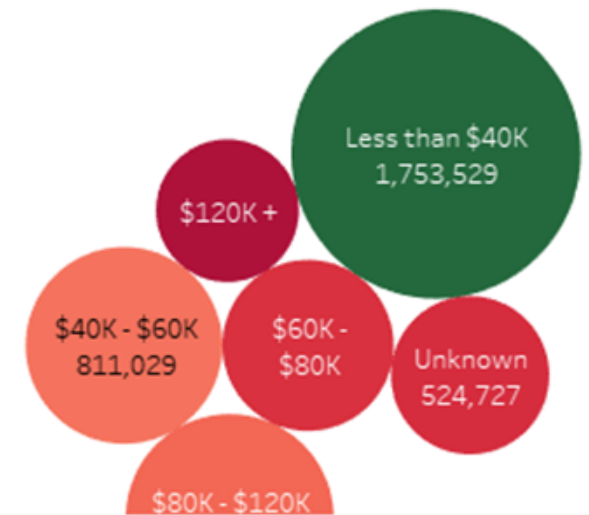
Attrited Customer based on Marital Status

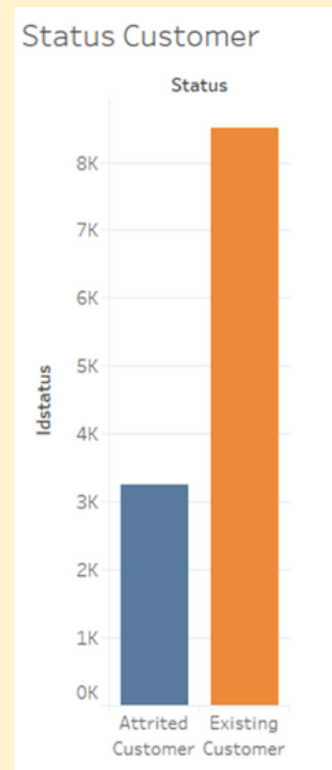


Attrited Customer based on Card Category



Attrited Customer based on Categori Income and total transaction

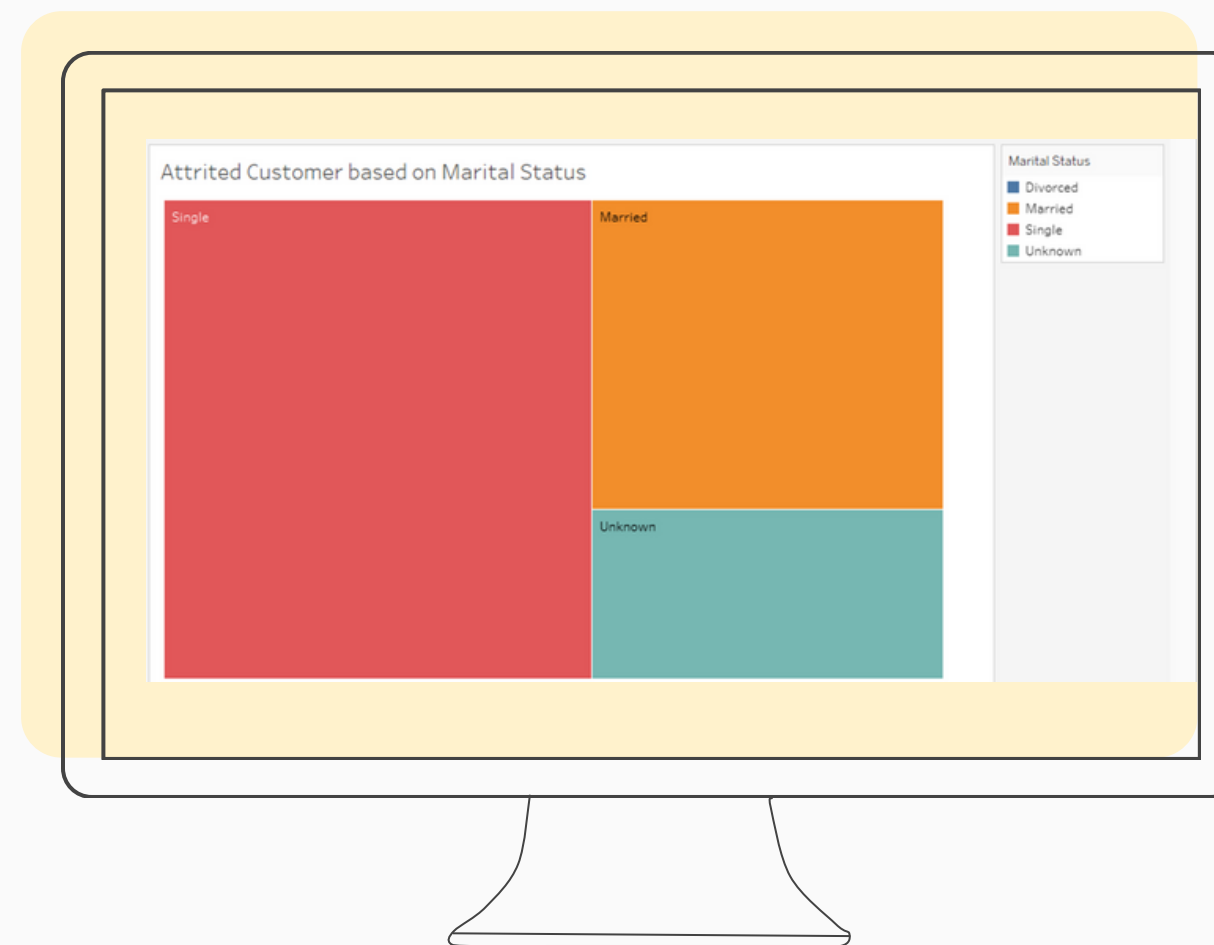




Status Customer	
Status	
Attrited Customer	3,254
Existing Customer	8,500

CUSTOMER BASED ON ID_STATUS

By leveraging the status ID, we can categorize attrited customers, allowing us to hone in on this specific data set and conduct further exploratory analysis.



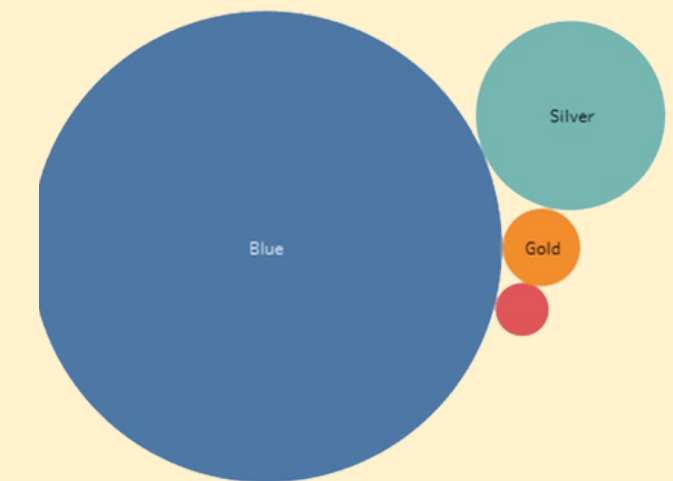
ATTRITED CUSTOMER BASED ON MARITAL STATUS

The majority of attrited customers, 1336 in total, are individuals with a single marital status. This suggests that being single, often linked to financial neglect, is a key factor contributing to the high churn rate.

INSIGHT

Attrited Customer based on Card Category

Car Category		Car Category	
Blue	1,519	Blue	
Gold	42	Gold	
Platinum	20	Platinum	
Silver	246	Silver	



ATTRITED CUSTOMER BASED ON CARD CATEGORY

The attrited customers are mostly from the Blue card category, totaling 1519. The high churn rate could be attributed to the limited services offered by the Blue card compared to other card types.

INSIGHT

Attrited Customer based on Category Income and total transaction



ATTRITED CUSTOMER BASED ON CARD INCOME CATEGORY AND TOTAL TRANSACTION

The highest number of attrited customers belongs to the income bracket below \$40k, essentially representing the lower to middle-class segment. This implies a likelihood of facing challenges in credit payments or a connection with potential credit defaults.



CONCLUSION & SUGGESTION

CONCLUSION

1. Income Dynamics:

- The correlation between income levels and customer-bank interactions is crucial for deciphering and addressing customer churn.
- Churn rates tend to escalate as income diminishes, underscoring the pivotal role of financial factors in retaining customers.

2. Outreach Impact:

- A noteworthy correlation is observed: a reduction in bank outreach corresponds to a higher likelihood of customer churn.
- This emphasizes the importance of proactive engagement as a key factor in fostering customer loyalty.

SUGGESTION

1. Behavioral Analysis:

Conduct a meticulous examination of customers' purchasing behaviors, delving into not just their product choices but also how they interact with and utilize your offerings.

2. Targeted Retention Strategies:

Implement focused customer retention initiatives, including personalized messages through email or WhatsApp specifically aimed at customers showing signs of potential departure.

3. Subtle Personalized Outreach:

Utilize personalized outreach as a subtle yet impactful signal to influence customers on the brink of leaving, demonstrating a commitment to their individual needs and fostering loyalty.

THANKS!

