

# Filter Potension Customer



You can reach  
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# Arief Mis Hargi

## About Me

Professional administrative support with experience in the banking industry. wanted to bring this experience to the data role. I am skilled in analytical skills, planning, and have a strong interest in solving data analytics and data science problems with Python and SQL



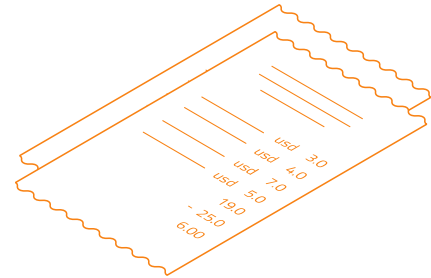
# Outline<sup>x</sup>

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# Background



01



A manager at a bank was bothered by more and more customers leaving the card service.

They would really appreciate it if someone could find out customer profiles so that they could know which customers are leaving so that they could proactively approach customers to provide better service and change customers in the opposite direction.

As a team of data engineers, I want to find the elements that contribute to client reduction.



# Business Objective



02

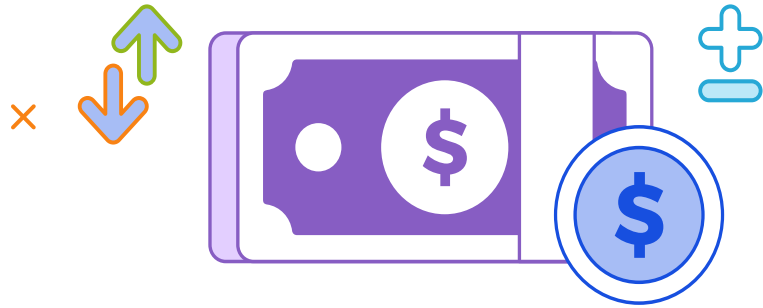


# BUSINESS OBJECTIVE

- 1 Determine the root causes of client attrition.
  - 2 Give consumers who could be at danger of attrition preventative measures.
- 



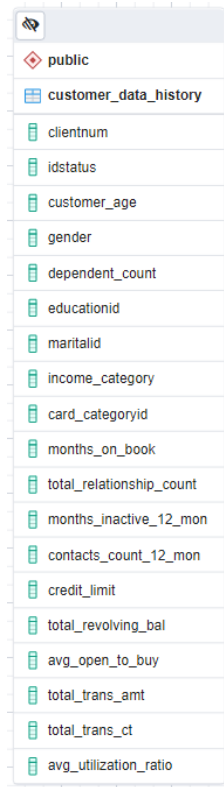
# Exploratory Data Analysis



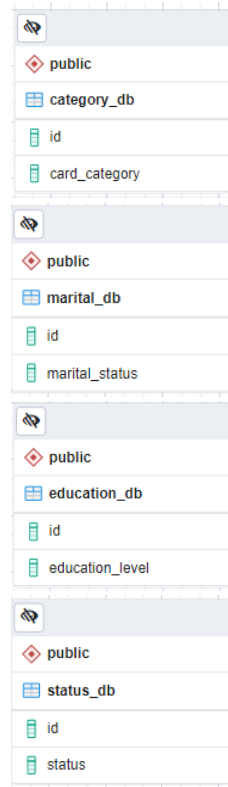
03



# Data Overview



public
customer_data_history
clientnum
idstatus
customer_age
gender
dependent_count
educationid
maritalid
income_category
card_categoryid
months_on_book
total_relationship_count
months_inactive_12_mon
contacts_count_12_mon
credit_limit
total_revolving_bal
avg_open_to_buy
total_trans_amt
total_trans_ct
avg_utilization_ratio



public
category_db
id
card_category
public
marital_db
id
marital_status
public
education_db
id
education_level
public
status_db
id
status

The data consists of 10127 rows

## Column description:

Clientnum : client id number

Idstatus: description of customer status

Customer\_age : customer age

Gender: customer gender

Number of dependents: the responsibility of the customer

Educationid : information on customer education level

Marriage: marriage customer status

Income\_category : customer income category

Card\_categoryid : type of customer's credit card

Month\_on\_book : period related to bank

Relationship\_in\_count : total product held by customer

Months\_inactive\_in\_12\_month : number of months of inactivity in the last 12 months

Contacts\_Count\_12\_mon : total contacted by bank in the last 12 months

Credit limit: credit limit

Total Revolving Credit Card Balance: total revolving balance on credit cards

Avg\_open\_to\_buy : bought by credit card in the last 12 months

Total\_trans\_amt : number of transactions

Total\_trans\_ct : transaction frequency

Avg\_utilization\_ratio : average credit card usage ratio

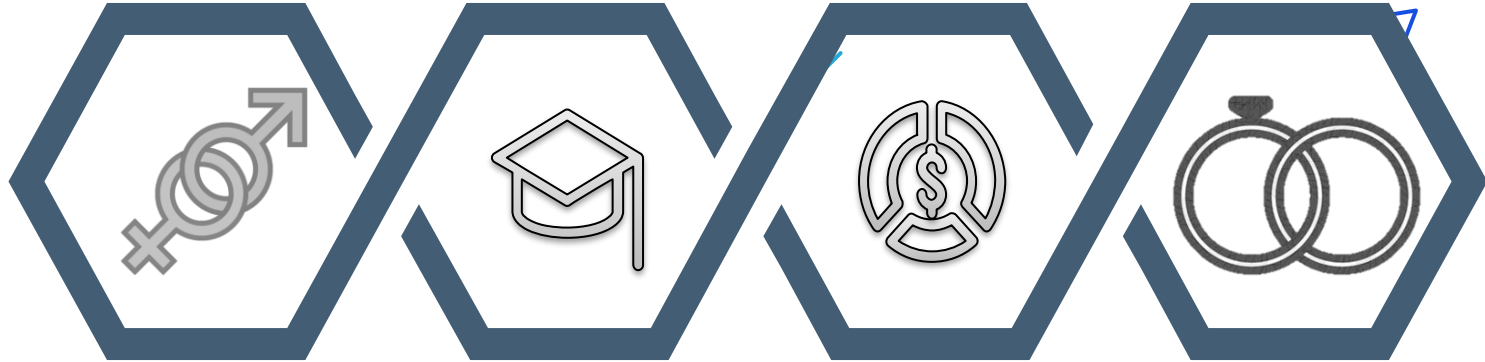
Database Category\_db = data category of the credit card service used

Database Education\_db = Education customer level data

Marriage Database\_db = marriage customer status data

Database Status\_db = data on the status of existing/dressed customers

# Customer Profile



## Gender

Male : 47.14%  
Female : 52.86%

## Education

High School : 19.87%  
Graduate : 30.88%  
Uneducated : 14.66%  
College : 10.03%  
Doctorate : 4.44%  
Post-Graduate : 5.09%  
Unknown : 15.02%

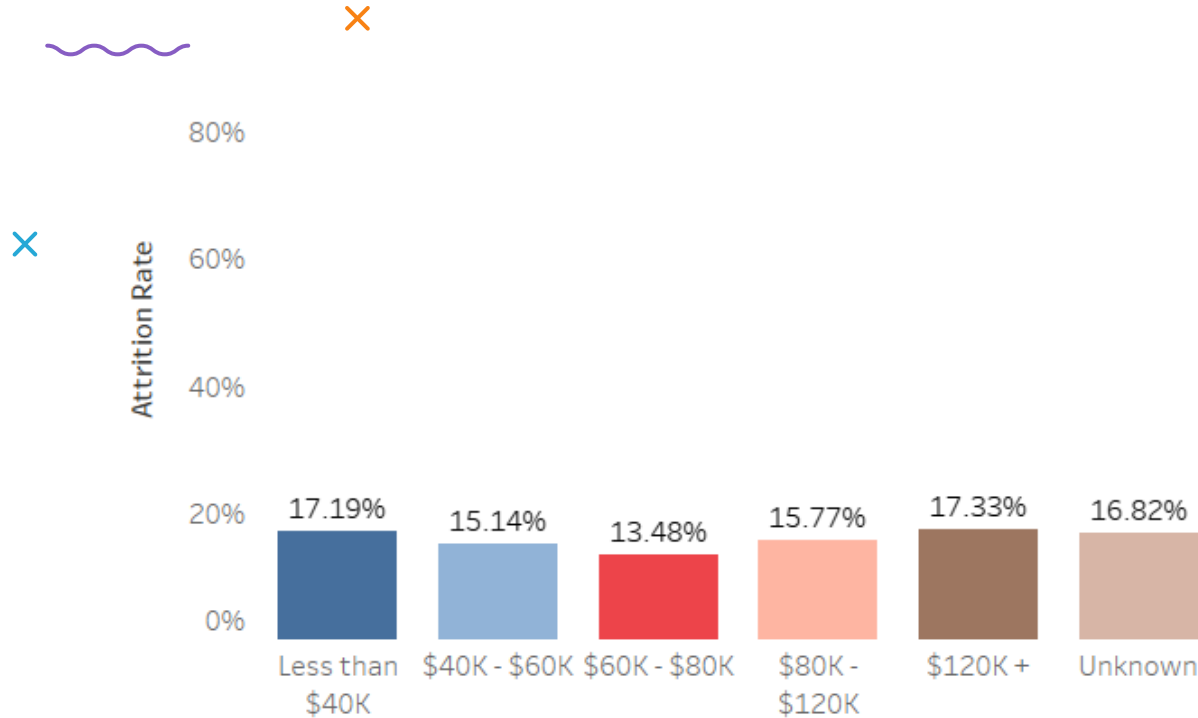
## Income

Less then \$40K : 35.11%  
\$40K - \$60K : 17.71%  
\$60K - \$80K : 13.85%  
\$80K - \$1200K : 15.19%  
\$120K + : 7.19%  
Unknown : 10.96%

## Marital Status

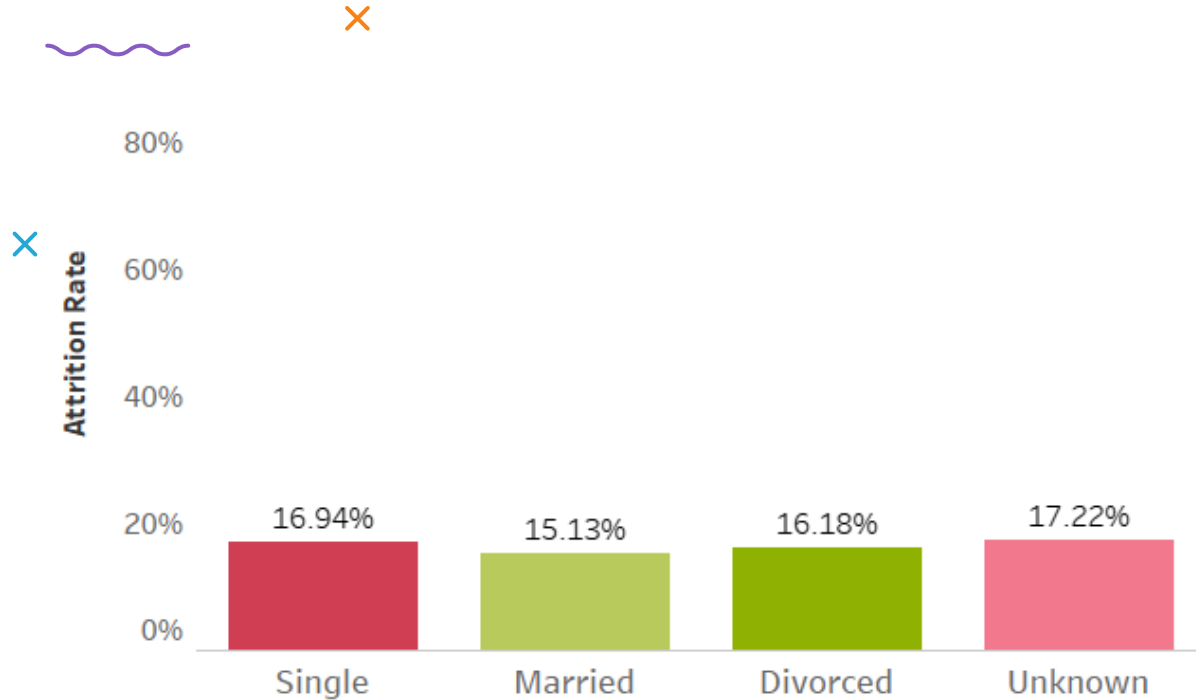
Single : 38.94%  
Married : 46.28%  
Divorced : 7.40%  
Unknown : 7.39%

# Exploratory Data Analysis



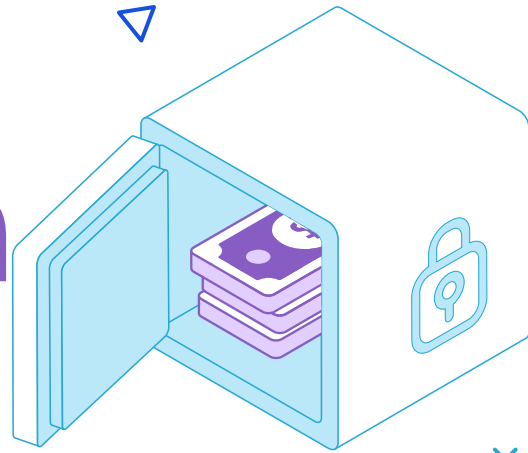
The most devoted clients were those earning between \$80K and \$120K, while those earning more over \$120K saw a 17.33% greater attrition rate than the other groups.

# Exploratory Data Analysis



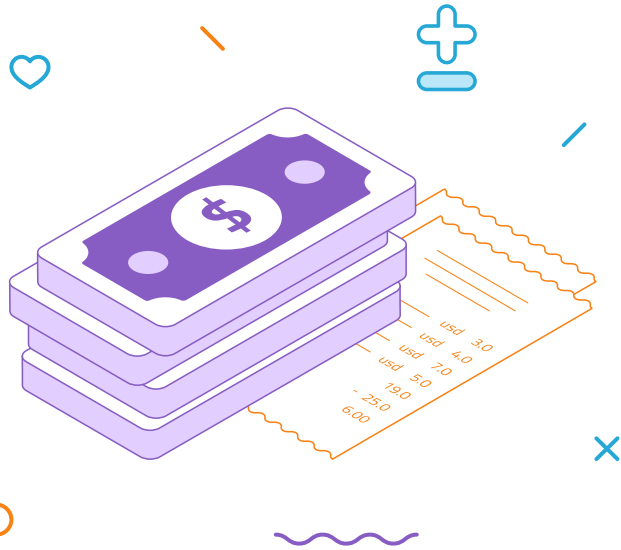
Married customers make up the majority of consumers, yet when compared to other customers, clients with unknown status experience the greatest turnover rates with 17.22%.

# Business Recommendation



04

# Business Recommendation



The following conclusions are reached as a result of the exploratory data analysis:

1. The income and the number of dependents have an impact on the customer's attrition. This can make it harder for a client to pay their credit card payments.
2. Filtering credit approvals to minimize the possibility that customers are unable to pay and end up leaving the use of credit cards.
3. To maintain devoted clients who use credit cards, provide promotions as necessary.



Thanks!

