# OMNIMART-RETAILERS

## PROBLEM STATEMENT SUMMARY:

The Sales/Growth according to Customer Age of OmniMart, a chain of Retailers store, needs a data-driven strategy to optimize sales performance and drive business growth on the behave of Buyers Age. The core challenge is to leverage historical sales data (units,revenue across products, stores, and cities, including time-seriestrends) to identify actionable insights that can inform strategic decisions.

## IMPORTANT KPIS :

- Customer Age
- Country
- No of Product Sold

### KEY CHALLENGE AREAS REVEALED BY ANALYSIS:

- Which Aged Customer Ordered most
- Which top Products we need to supply more
- Are they satisfied to buy product analysis behave on Rating

# 1. DATA DESCRIPTION

# DATA DESCRIPTION

| # | Column | Non-Null Count | Dtype |
|---|---|---|---|
| 0 | Transaction_ID | 301677 non-null | float64 |
| 1 | Customer_ID | 301702 non-null | float64 |
| 2 | Name | 301628 non-null | object |
| 3 | Email | 301663 non-null | object |
| 4 | Phone | 301648 non-null | float64 |
| 5 | Address | 301695 non-null | object |
| 6 | City | 301762 non-null | object |
| 7 | State | 301729 non-null | object |
| 8 | Zipcode | 301670 non-null | float64 |
| 9 | Country | 301739 non-null | object |
| 10 | Age | 301837 non-null | float64 |
| 11 | Gender | 301693 non-null | object |
| 12 | Income | 301720 non-null | object |
| 13 | Customer_Segment | 301795 non-null | object |
| 14 | Date | 301651 non-null | object |
| 15 | Year | 301660 non-null | float64 |
| 16 | Month | 301737 non-null | object |
| 17 | Time | 301660 non-null | object |
| 18 | Total_Purchases | 301649 non-null | float64 |
| 19 | Amount | 301653 non-null | float64 |
| 20 | Total_Amount | 301660 non-null | float64 |
| 21 | Product_Category | 301727 non-null | object |
| 22 | Product_Brand | 301729 non-null | object |
| 23 | Product_Type | 302010 non-null | object |
| 24 | Feedback | 301826 non-null | object |
| 25 | Shipping_Method | 301673 non-null | object |
| 26 | Payment_Method | 301713 non-null | object |
| 27 | Order_Status | 301775 non-null | object |
| 28 | Ratings | 301826 non-null | float64 |
| 29 | products | 302010 non-null | object |

## Shape

- Rows : 302010
- Columns : 30

## Data Types

- float64
- object

## 2. INITIAL ANALYSIS

# Features

## Categorical

- City
- Phone
- Zipcode
- State
- Country
- Gender
- Customer_Segment
- Product_Category
- Product_Brand
- Product_Type
- Shipping_Method
- Order_Status

## Temporal

- Date
- Year
- Month
- Time

## Text / string

- Name
- Email
- Address
- Feedback

## Numerical

- Transaction_ID
- Customer_ID
- Age
- Year
- Total_Purchases
- Amount
- Total_Amount
- Ratings
- Income

# INSPECTING OF NUMERICAL VARIABLE

## Age

Highest Age : 70.0

lowest Age : 18.0

Highest order : 34678

mean : 35.481326013709385

median : 32.0

standard deviation : 15.021932528508106

variance : 225.65845689104995

skewness : 0.6525034070780483

# SUMMARY OF THE AGE NUMERICAL CATEGORY

- **Central Tendency**

  The median might be a more representative measure of central tendency. so the central Tendency belong **32.0 Age.**

- **Standard deviation :**

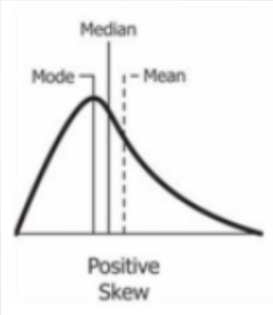
  Standard deviation is **15.021932528508106** .This higher standard deviation tells that the data is more spread out.

- **Data Variance :**

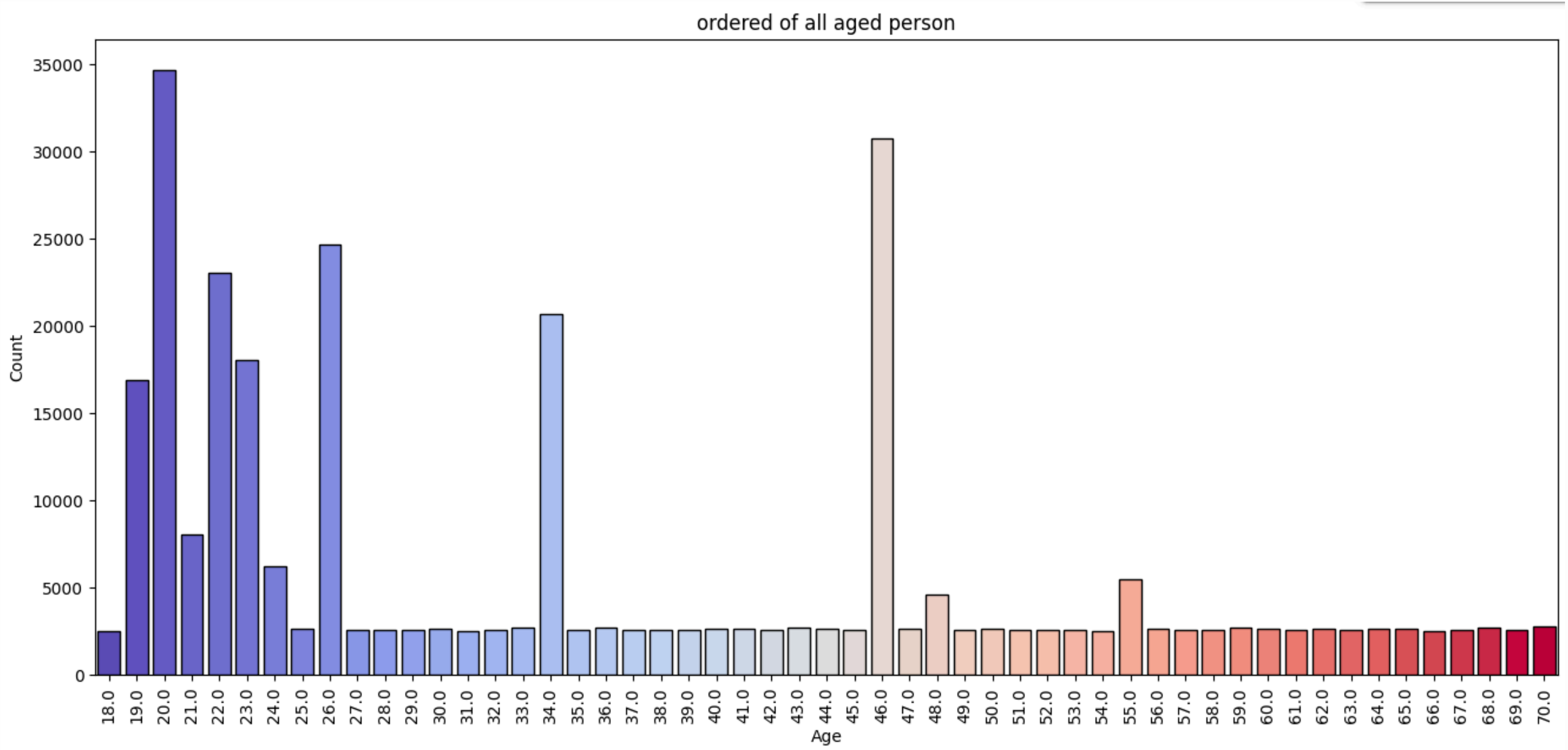
  Data Variance is **225.65845689104995,** that is too much high so that is indicate that the data is not clustered around mean.

- **Data Distribution :**

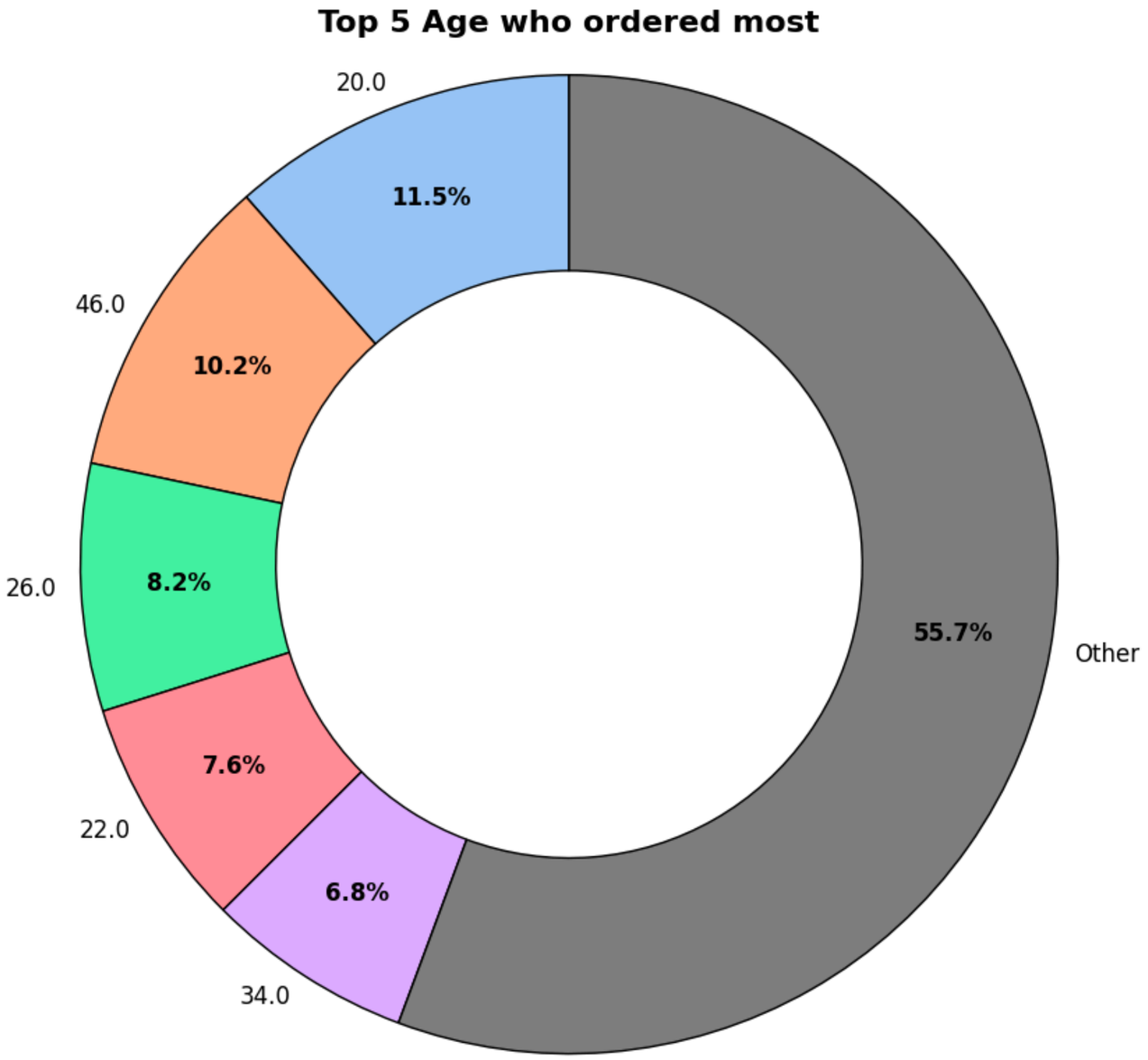
  The Skewness is **0.6525034070780483** so that is a positive skewness that means it has long tail in right side also mean is grater than median.



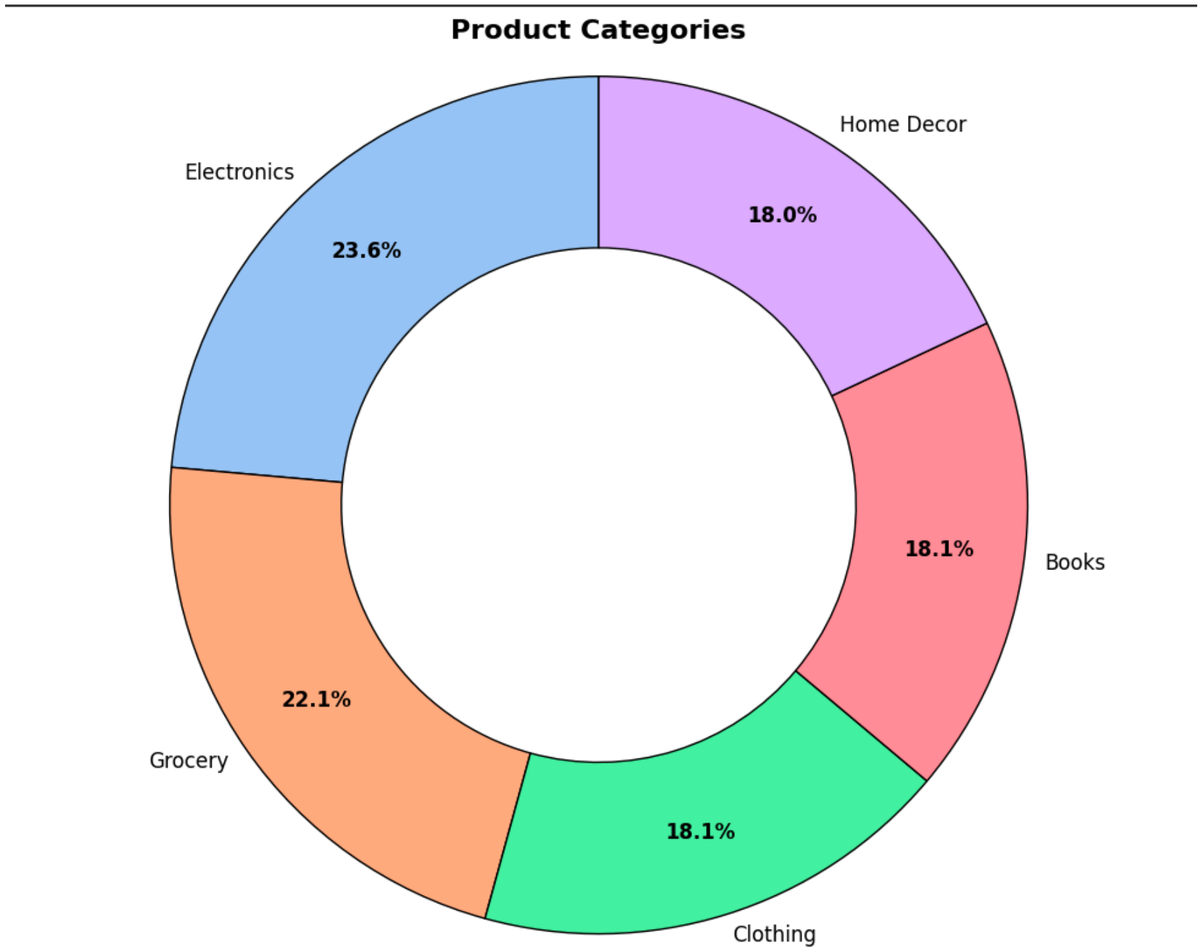
# Visual Analysis of Discrete Numerical Variable(Age)

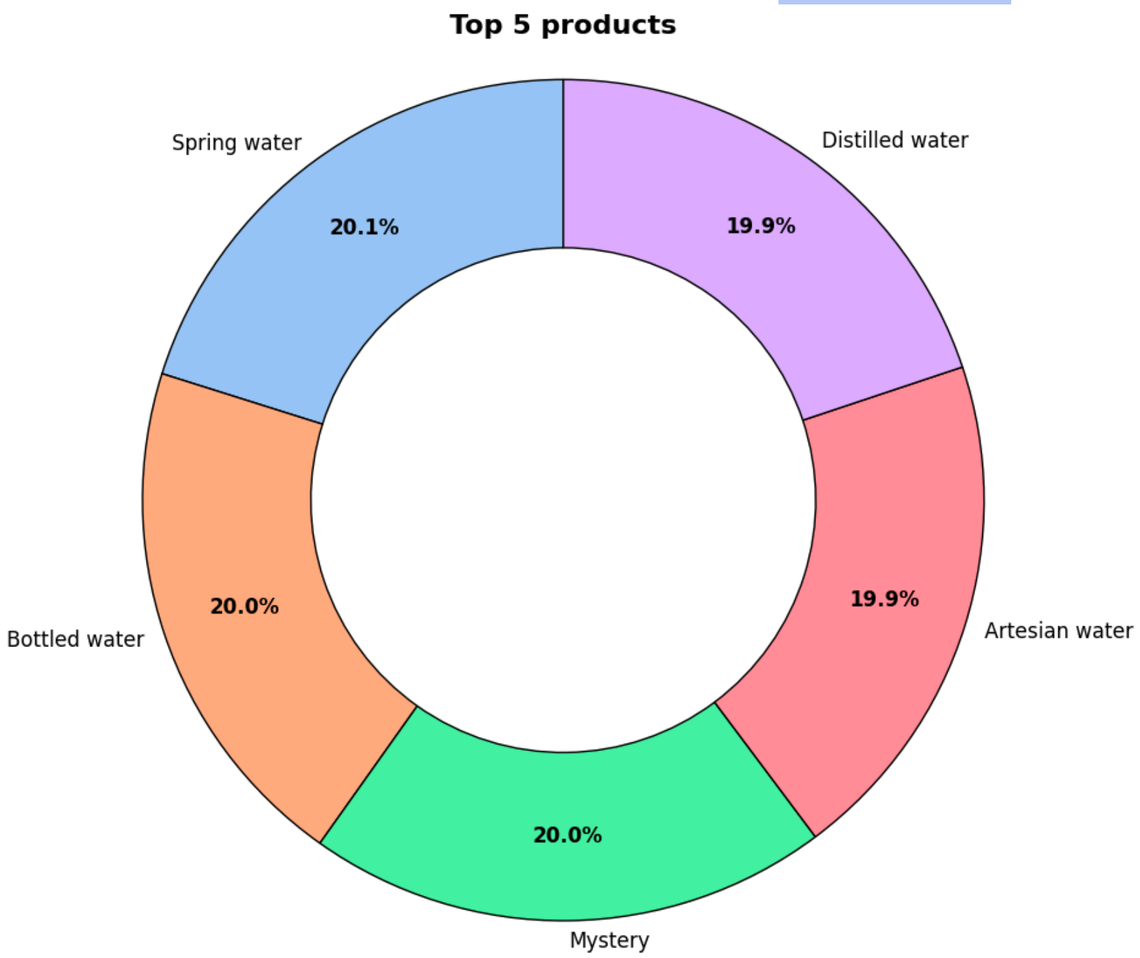


# Visual Analysis of Top 5 Age, who ordered most

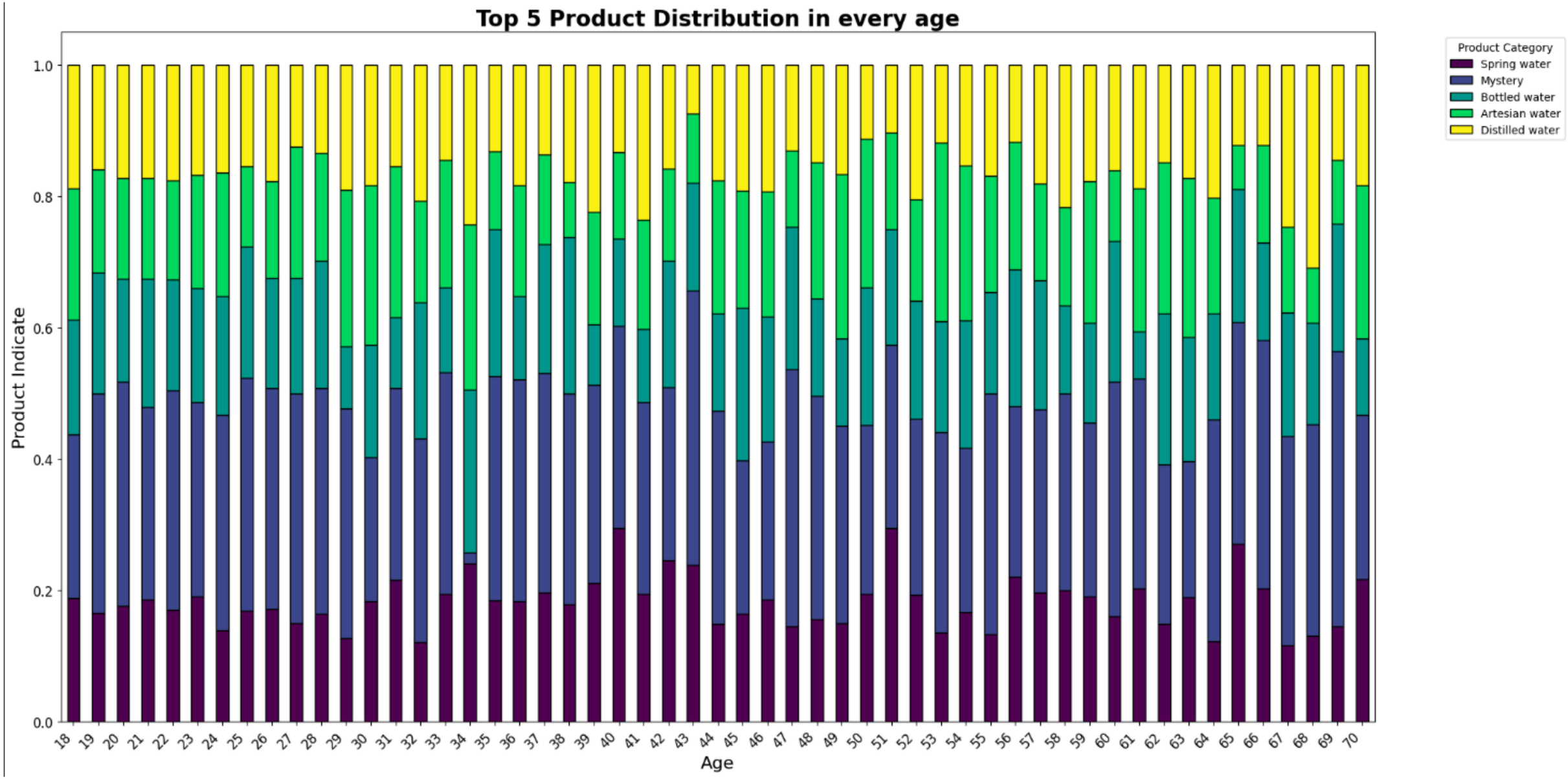


# Visual Analysis of Categorical Variable

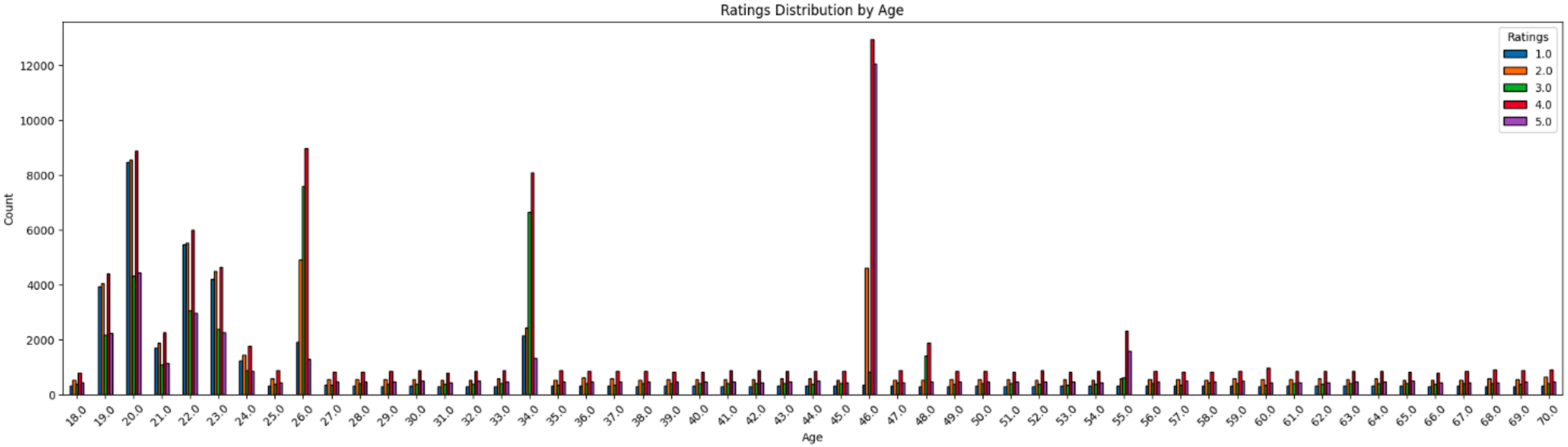


# VISUAL ANALYSIS OF CATEGORICAL VARIABLE

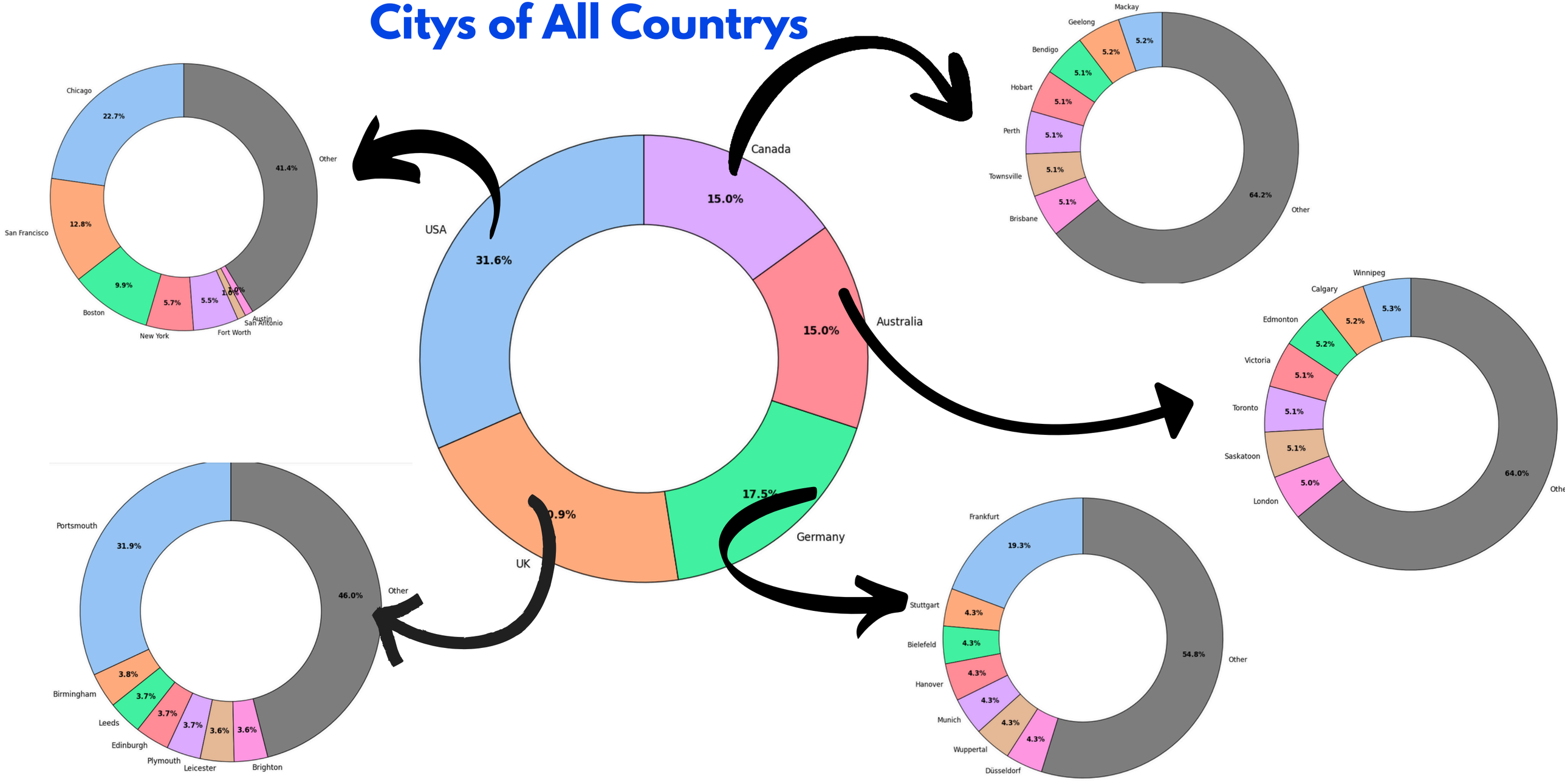


# VISUAL ANALYSIS OF CATEGORICAL VARIABLE (RATING)



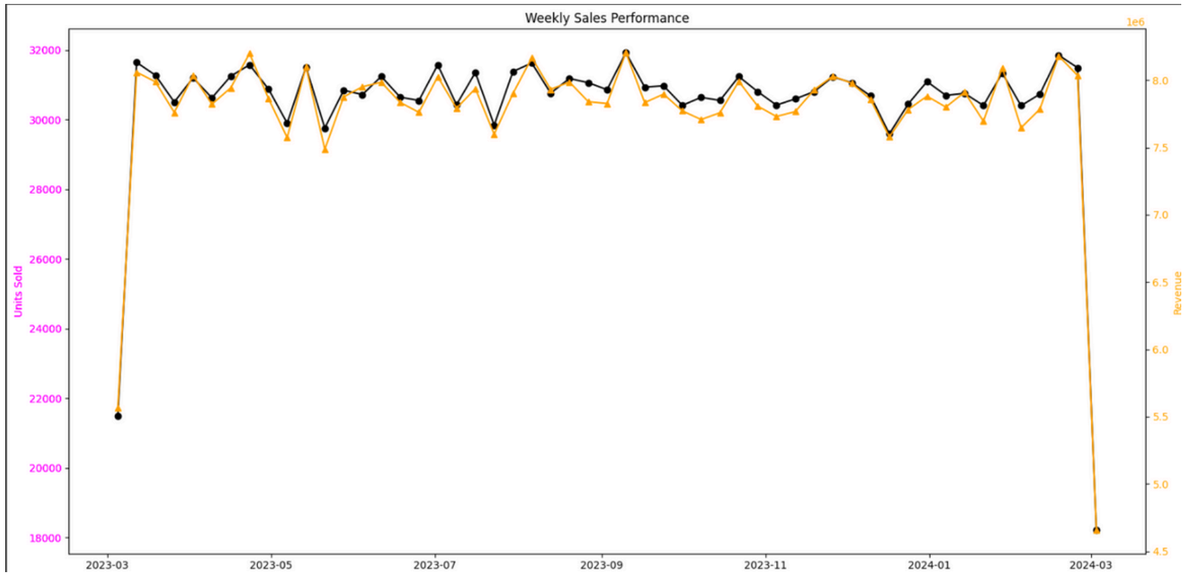
# VISUAL ANALYSIS OF CATEGORICAL VARIABLE

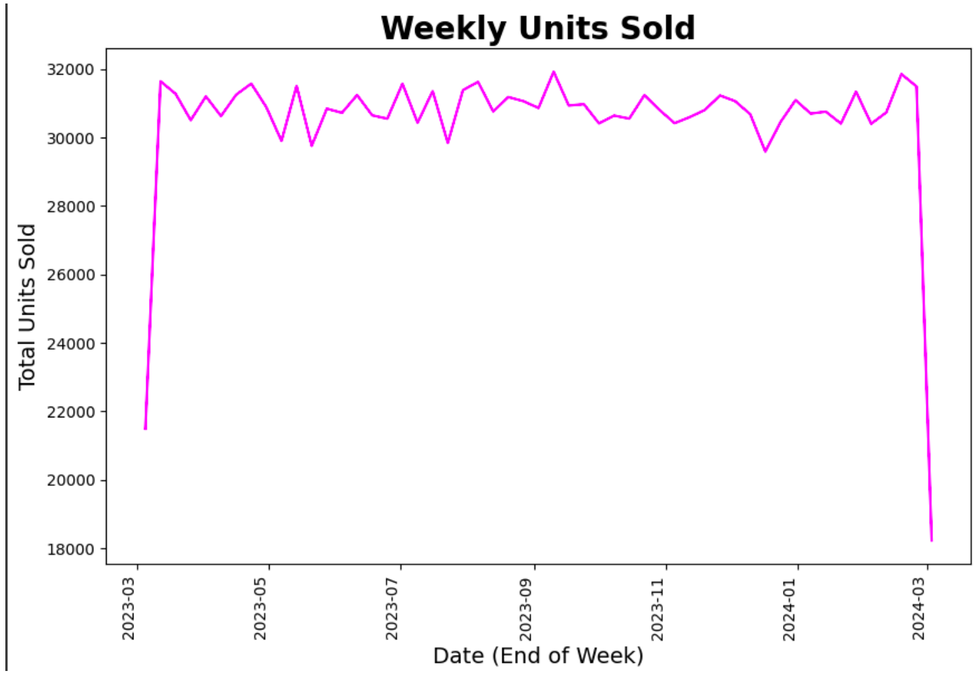
## Citys of All Countrys

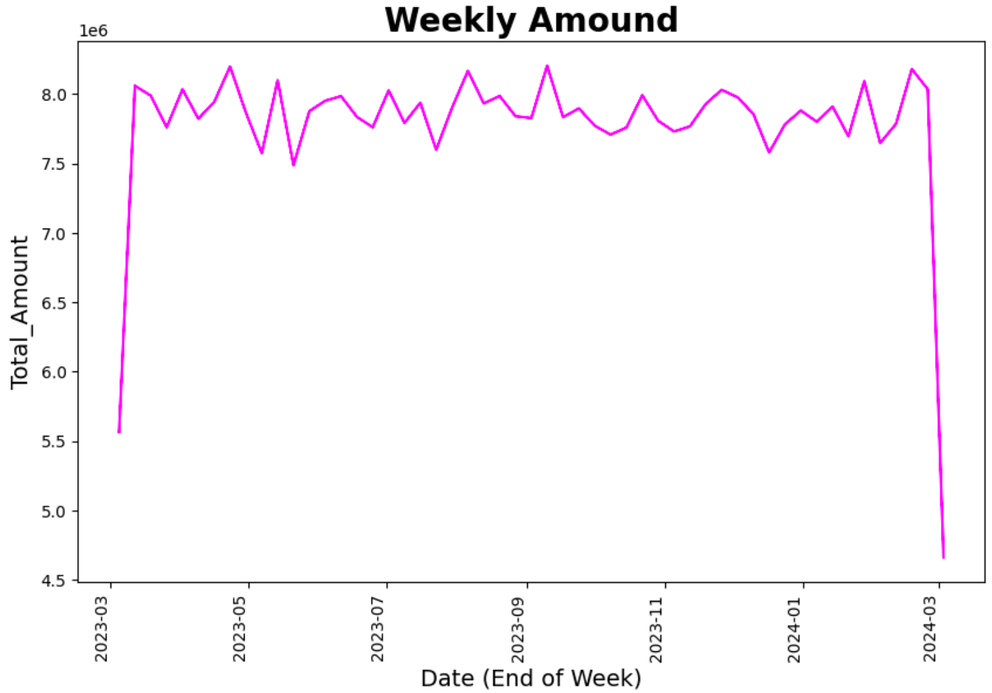


3. TIMESERIES
ANALYSIS - ACTUALS

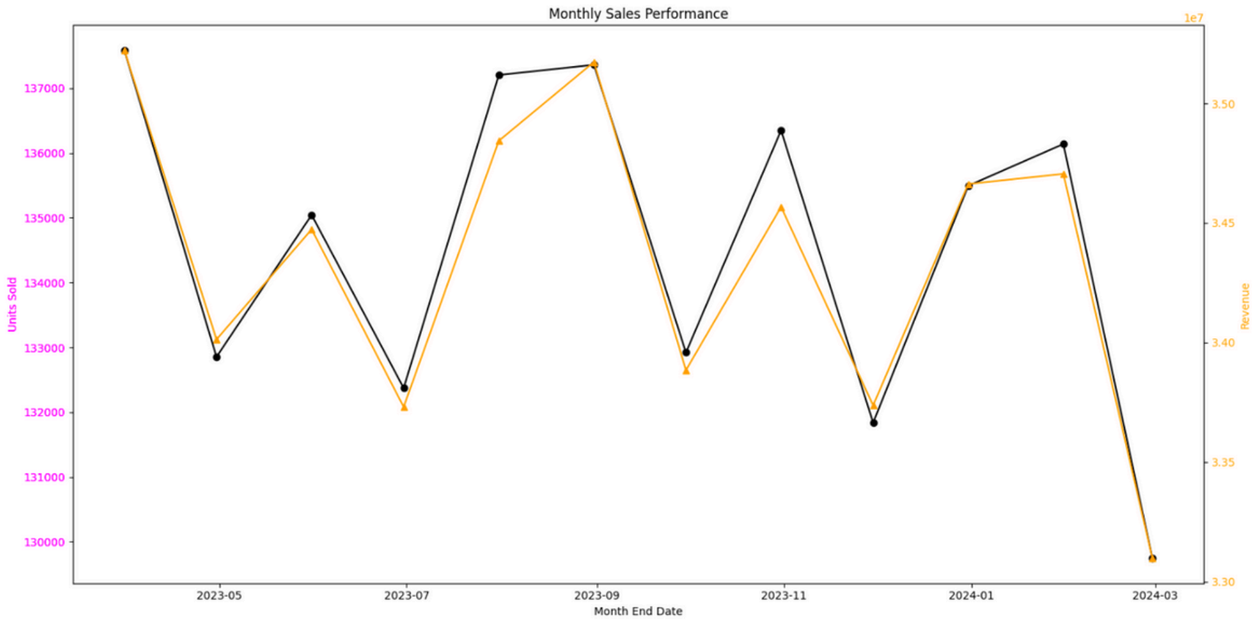
# TIMESERIES WOW GROWTH ANALYSIS – UNITS SOLD , REVENUE (WEEKLY)

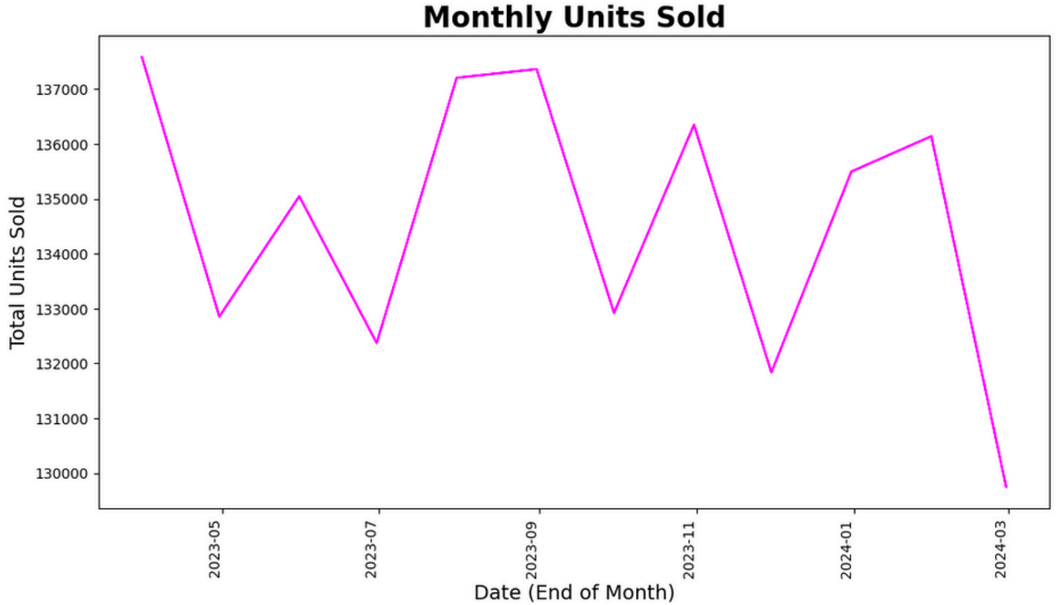


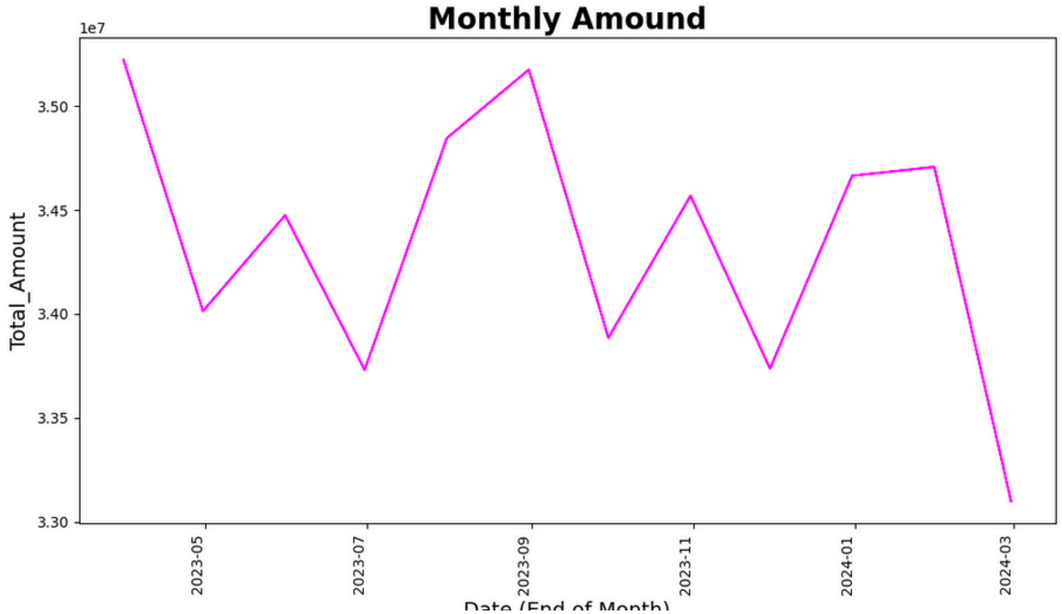



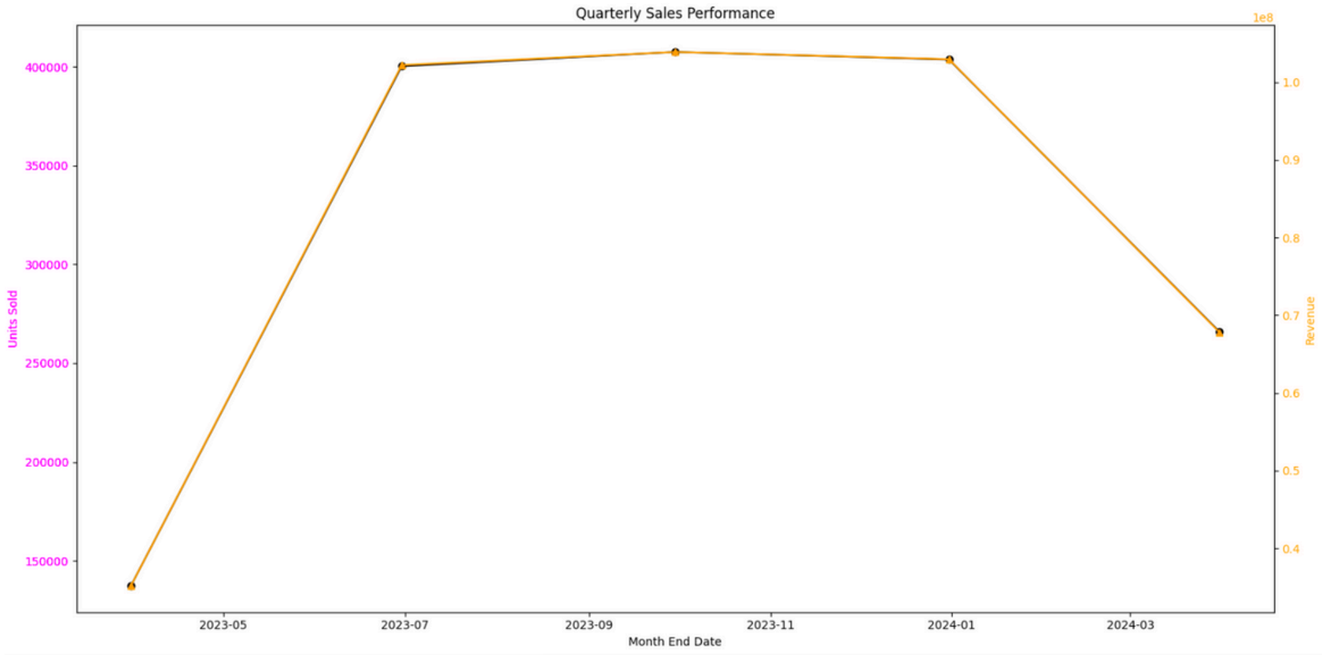
# TIMESERIES MOM GROWTH ANALYSIS – UNITS SOLD , REVENUE (MONTHLY)

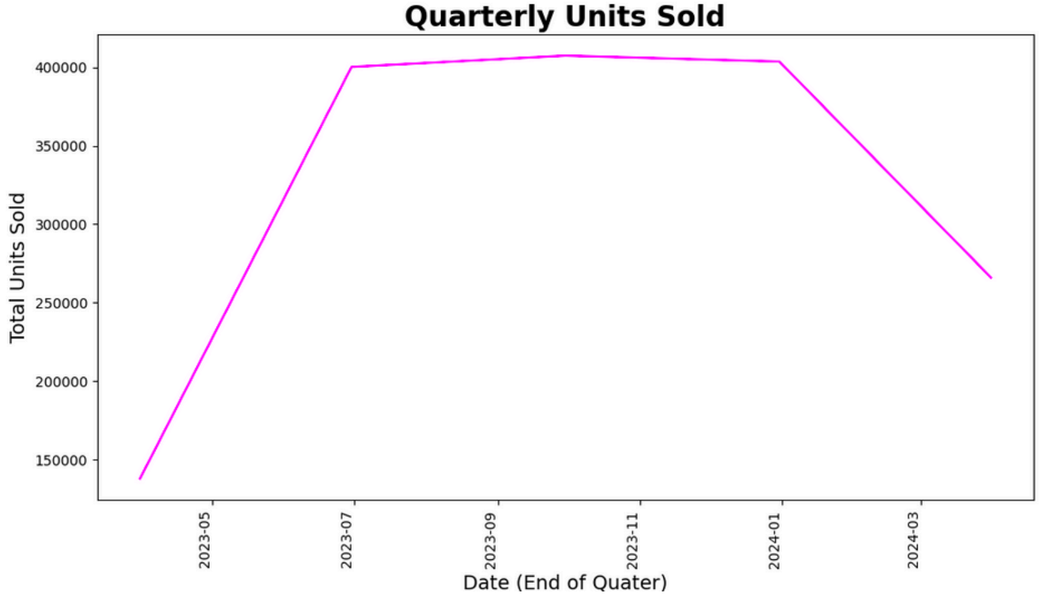


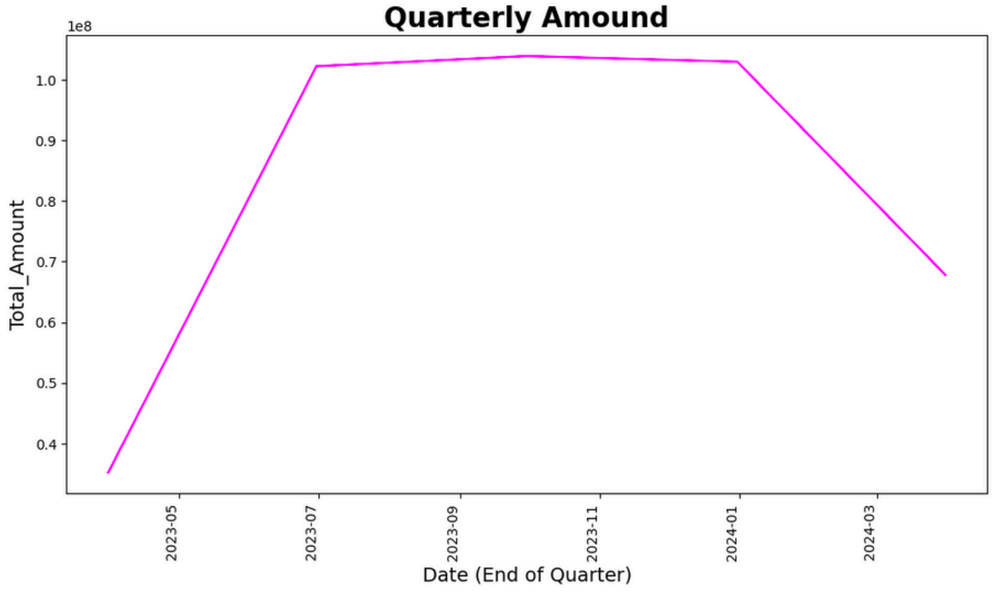



# TIMESERIES QOQ GROWTH ANALYSIS – UNITS SOLD , REVENUE (QUARTERLY)

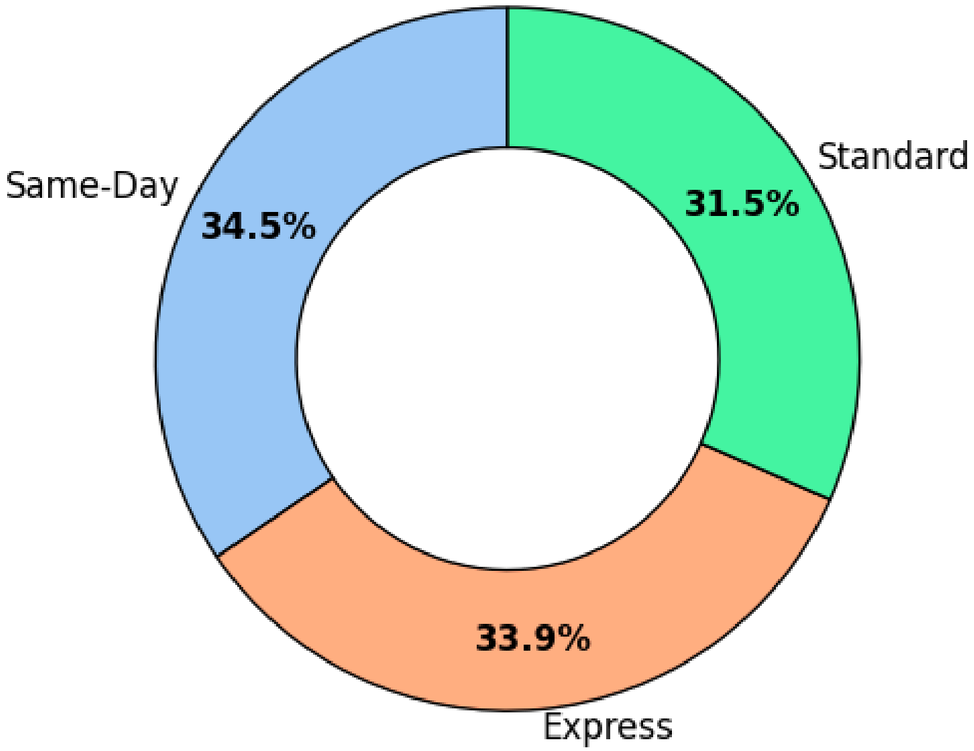


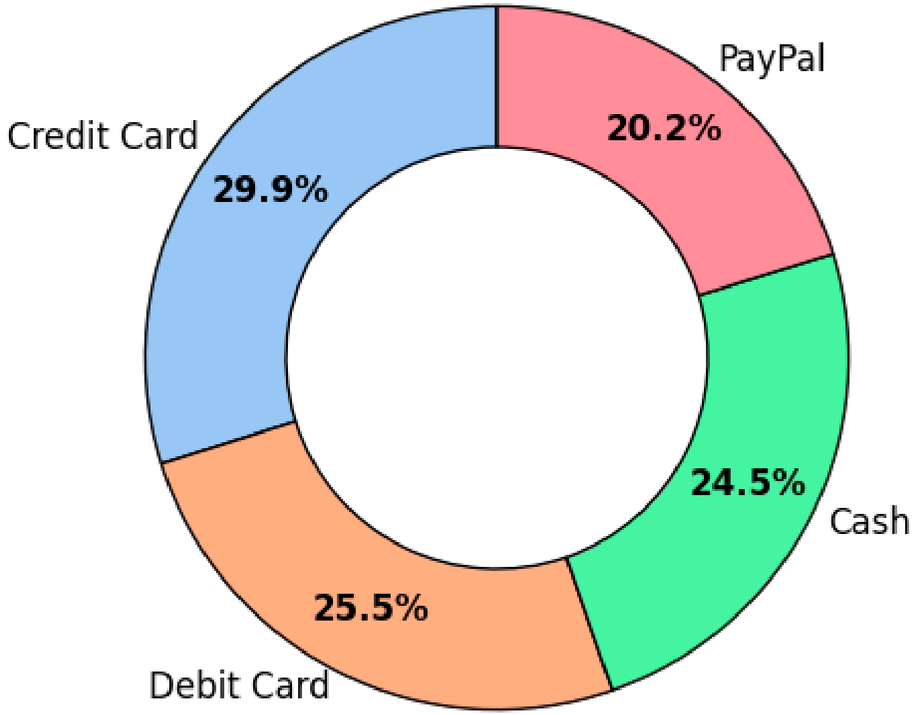



5. TOP N ANALYSIS

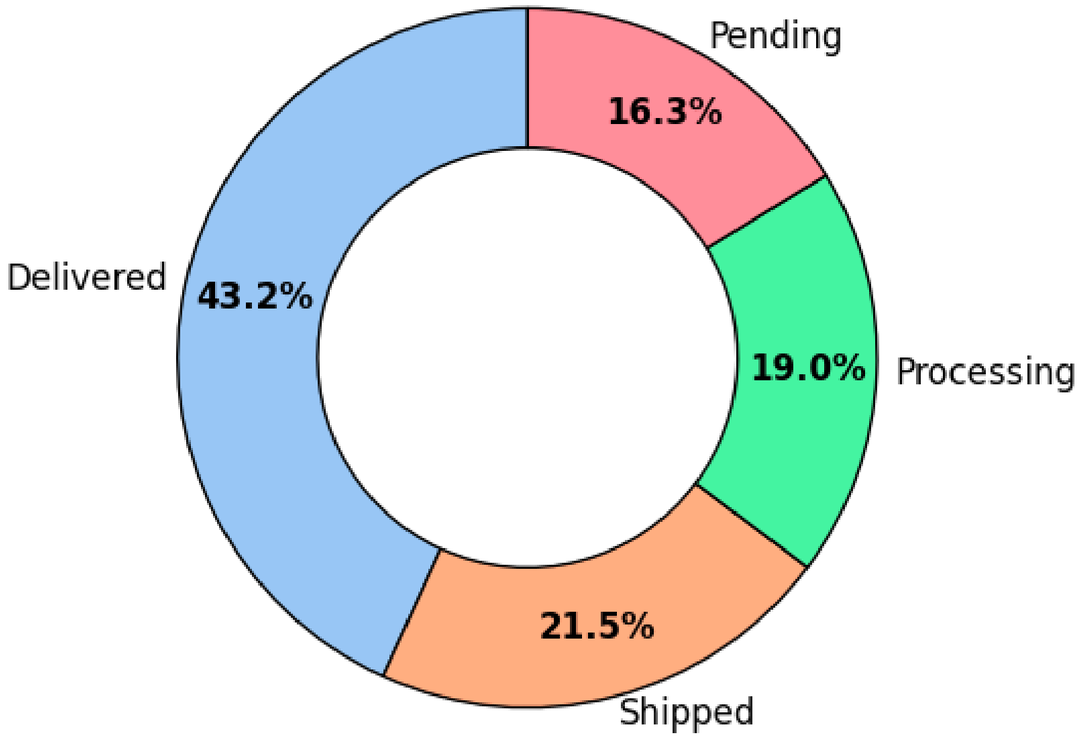
# SHIPPING METHODS



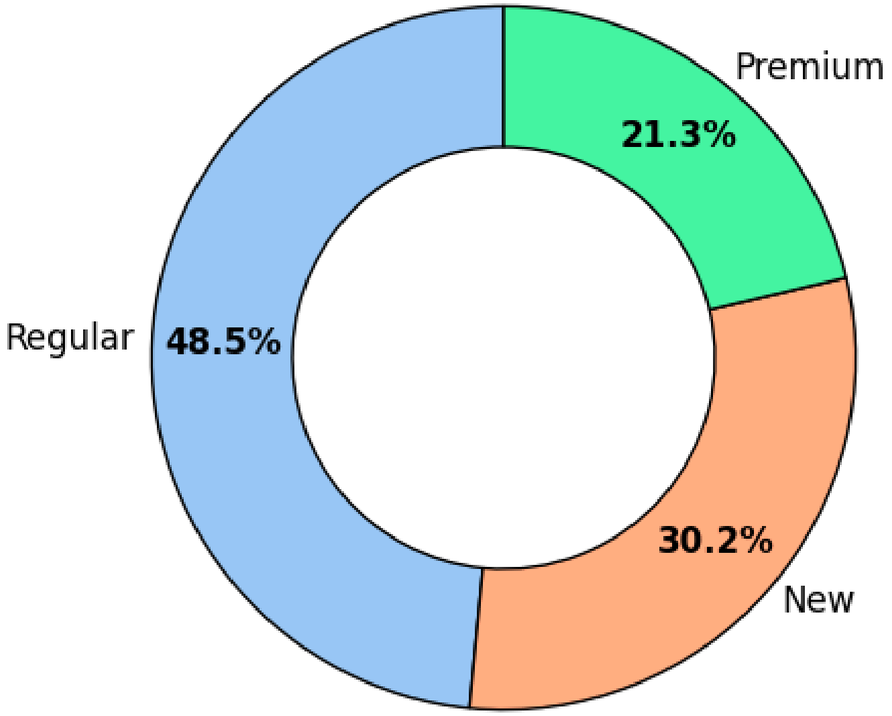

# PAYMENT METHODS



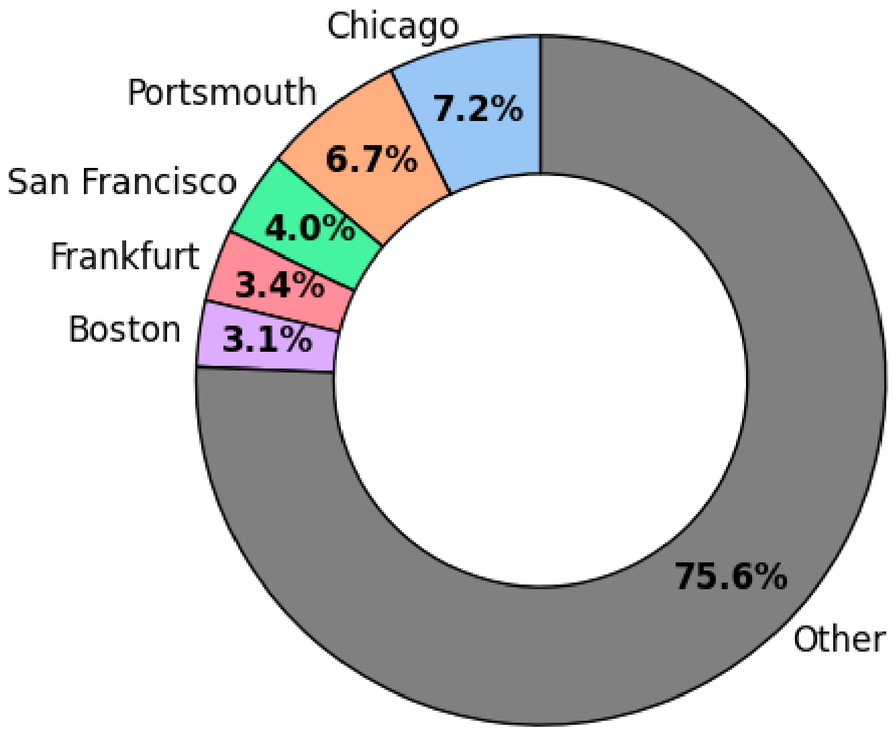
# ORDER_STATUS

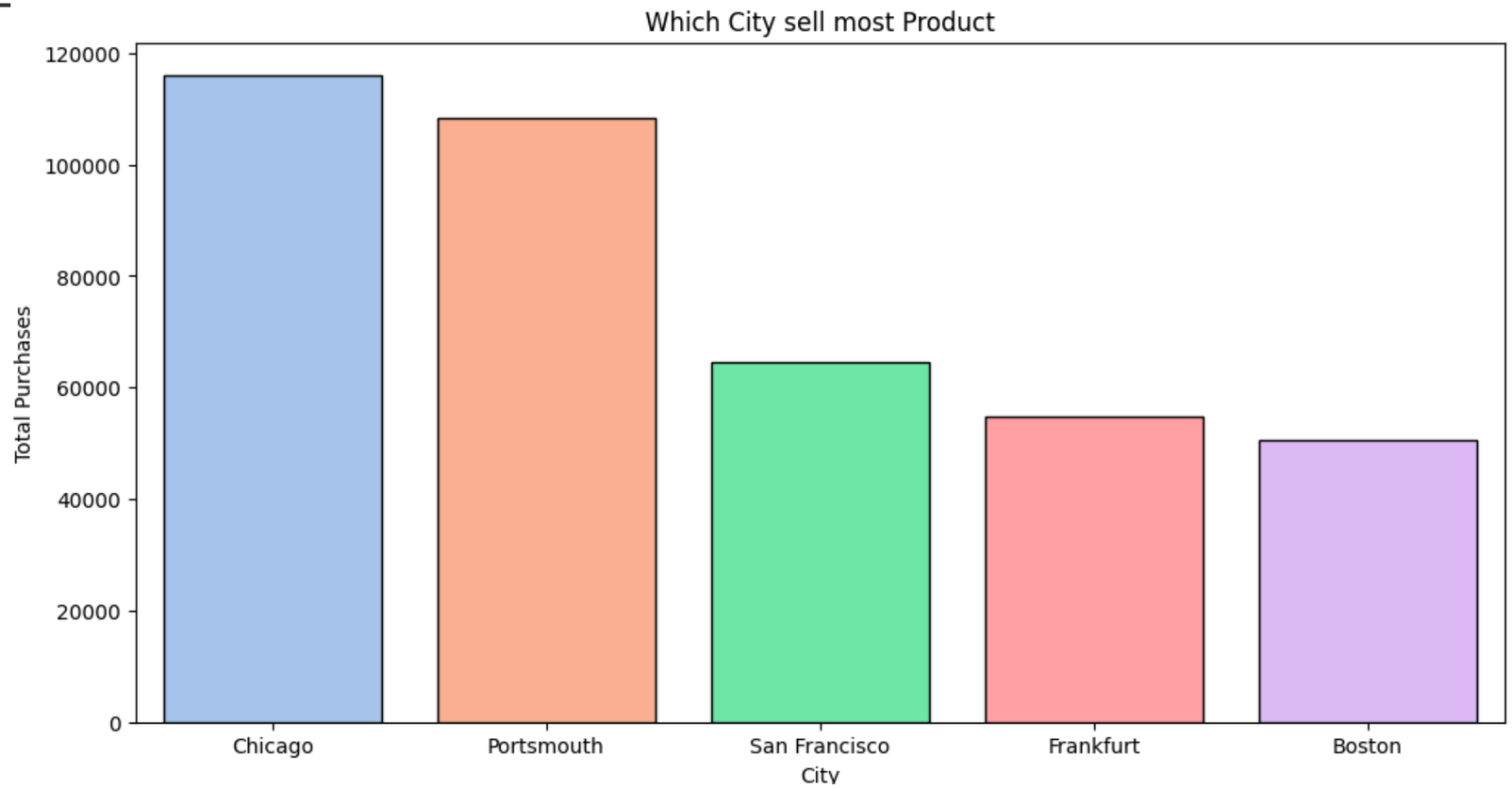



# CUSTOMER_SEGMENT



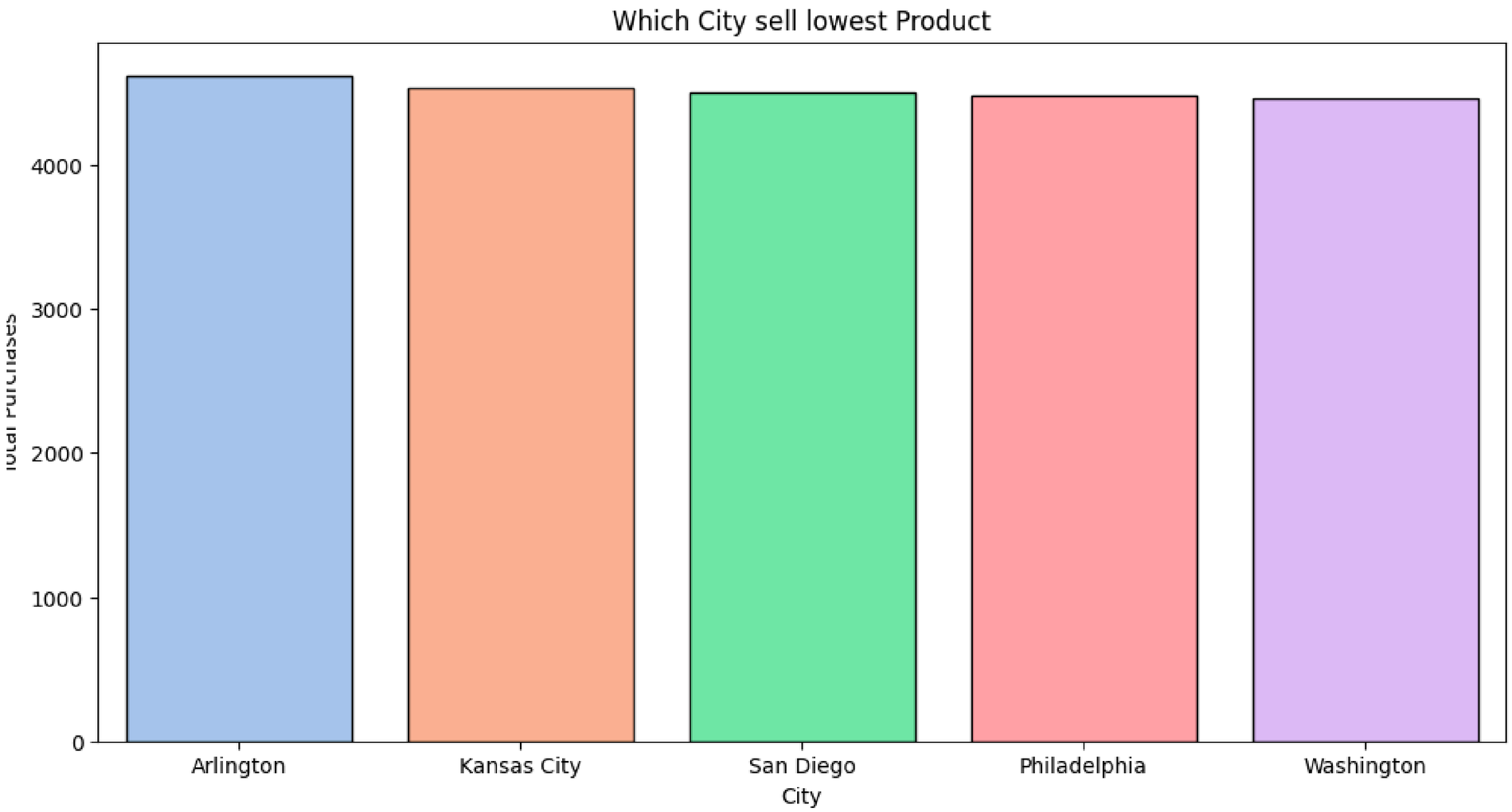
# TOP 5 CITY TO SELL MOST PRODUCT



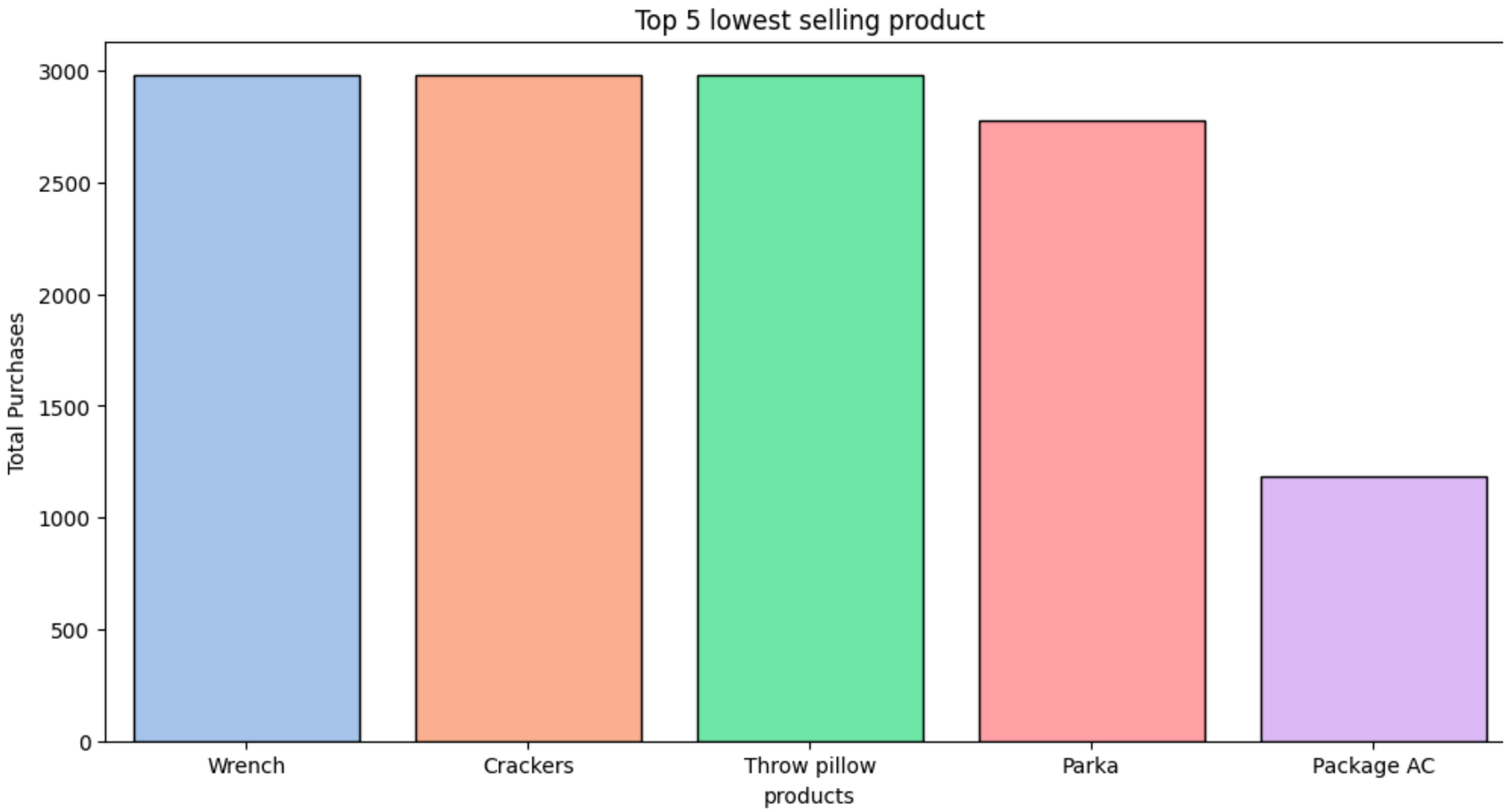



6. BOTTOM N ANALYSIS

# BOTTOM 5 CITY

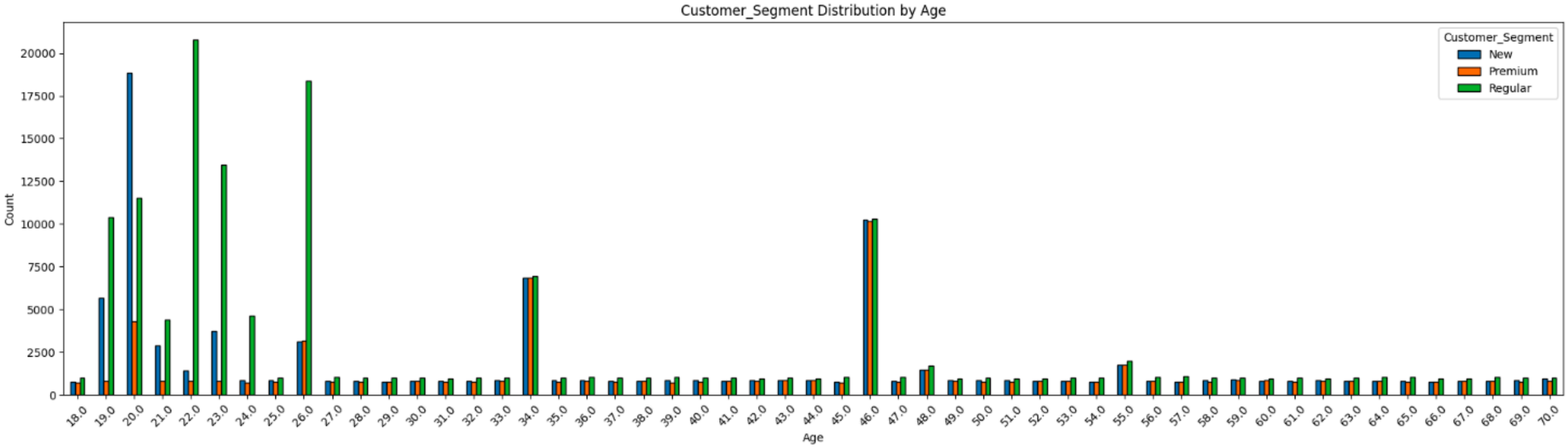


# BOTTOM 5 PRODUCTS

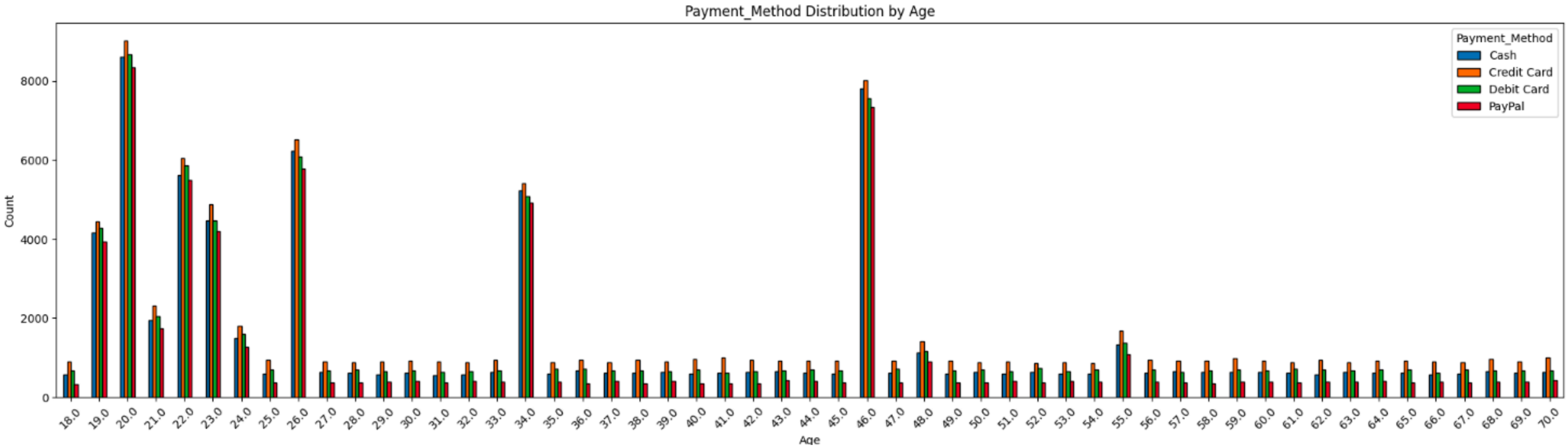


# 7. MULTIVARIATE ANALYSIS

# HOW MANY CUSTOMER SEGMENT BELONGS INTO A PERTICULAR AGE



# PAYMENT METHOD DISTRIBUTION




- Almost Every Aged group use all payment methods

# 8. FINAL RECOMMENDATION

# RECOMENDATION

- We need to add a feature that should be revenue related so that we can calculate profit.
- To identify a perticular customer , customer id is not enough even state,country can not identify the customer we must need city also.

# THANK YOU!