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DoorDash Marketing Campaign Analysis

Portfolio / By Fauzan Ghazi

Introduction

A DoorDash marketing campaign analysis aims to evaluate the efficacy of DoorDash's marketing efforts.

This could include a review of the campaign's target audience, it's messaging and branding, the channels used to promote the campaign, and the campaign's results in terms of increased sales, customer engagement, and brand awareness.

By analysing the success of past marketing campaigns, DoorDash can gain valuable insights that can be used to enhance future marketing efforts and stimulate business expansion, especially making decisions.

So with the help of Excel, I imported the 2,000 rows of data and learned:

- 67% of the spent can be explained by income levels
- Growth throughout the year was mostly constant, with the highest in January and the lowest in November

DoorDash

DoorDash is a leading food delivery option in the United States.

The data analytics team at DoorDash is constantly being asked to provide insights and value to the company through open-scope projects.

- Comprehend the data
- Discover business prospects and insights
- Propose any data-driven action to optimise campaign results and generate value for the organisation.

Overall, the company wants to improve its marketing & wants to see who has purchased following a marketing campaign.

Understanding The Data

As a data analyst, understanding the data that I receive is very important.

How to understand data?

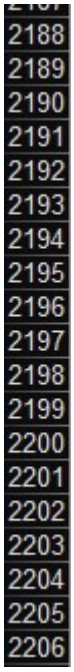
By spending time with the data, get to know data types, how many columns there are, and how many records there are.

In this project's data, each row is a unique customer, and the columns are different attributes of that customer and their behaviour.

There are 2,206 rows which are equal to 2,205 unique customers, where row 1 is the column headers.

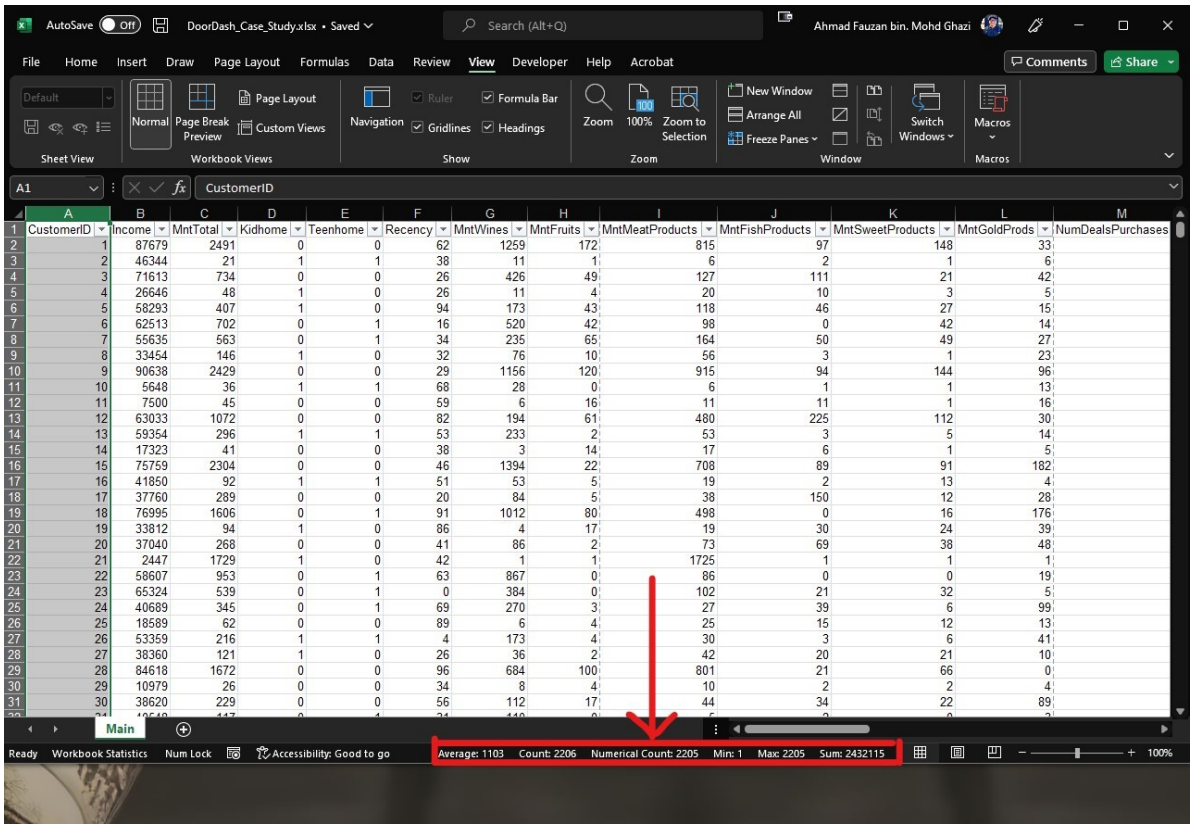
There are two ways to check the number of rows.

The first one is by scrolling and looking at the cell number, which is quite inconvenient to scroll down.



Scroll to the bottom of the data

The second way to do it is by clicking on the column heading. In this case, I select the A column, and at the bottom, I can see the status bar, which shows the statistics of the selected column.



Status Bar in Microsoft Excel

I can use the same method to check the number of columns, but this time

selecting the row heading instead of the column heading. There are 38 columns or attributes for this data.

Data Dictionary

There is no data dictionary provided for this project. However, I can create it by being intuitive or talking to a subject matter expert on the data. It can be the data engineer or the project manager.

This is the data dictionary that I came out with after looking at all 38 columns.

- Income: Customer's Yearly Income
- MntTotal: Total Amount Spent at Store by Customer
- Kidhome: Number of Young Kids in Home
- Teenhome: Number of Teenagers in Home
- Recency: Number of Days Since Last Purchase
- MntWines: Amount Spent on Purchasing Wine
- MntFruits: Amount Spent on Purchasing Fruit
- MntMeatProducts: Amount Spent on Purchasing Meat
- MntFishProducts: Amount Spent on Purchasing Fish
- MntSweetProducts: Amount Spent on Purchasing Sweet
- MntGoldProds: Amount Spent on Purchasing Gold
- NumDealsPuchased: Number of Purchases With Discount
- NumWebPurchases: Number of Purchases Made Through Website
- NumCatalogPurchases: Number of Purchases Made Through Catalogue
- NumStorePurchases: Number of Purchases Made Through Physical Store
- NumWebVisitsMonth: Number of Visits To Website in Last Month
- AcceptedCmp1: Did The Customer Accept Offer in 1st Campaign
- AccaptedCmp2: Did The Customer Accept Offer in 2nd Campaign
- AcceptedCmp3: Did The Customer Accept Offer in 3rd Campaign
- AcceptedCmp4: Did The Customer Accept Offer in the 4th Campaign
- AcceptedCmp5: Did The Customer Accept Offer in the 5th Campaign
- Complain: Has The Customer Complained In the Last 2 Years
- Age: Age of Customer
- Customer_Days: How Many Days Has Customer Been a Customer
- marital_Divorced: Is Customer Divorced?

- marital_married: Is Customer Married?
- marital_Single: Is Customer Single?
- Marital_Together: Is Customer Living With Someone?
- Marital_Widow: Is Customer Divorced?
- education_Basic: Is the customer's highest education level high school?
- education_Graduation: Is the customer's highest education level undergraduate?
- education_Master: Is the customer's highest education level Master's?
- education_PHD: Is the customer's highest education level a PhD
- MntRegularProds: Total Amount Spent on regular products
- DateJoined: The date the customer first became a customer

Keep in mind, in data, 1 often means TRUE while 0 often means FALSE.

1 means "YES," and 0 means "NO".

Let's go to the tasks, and I will share how I do the solution with each task.

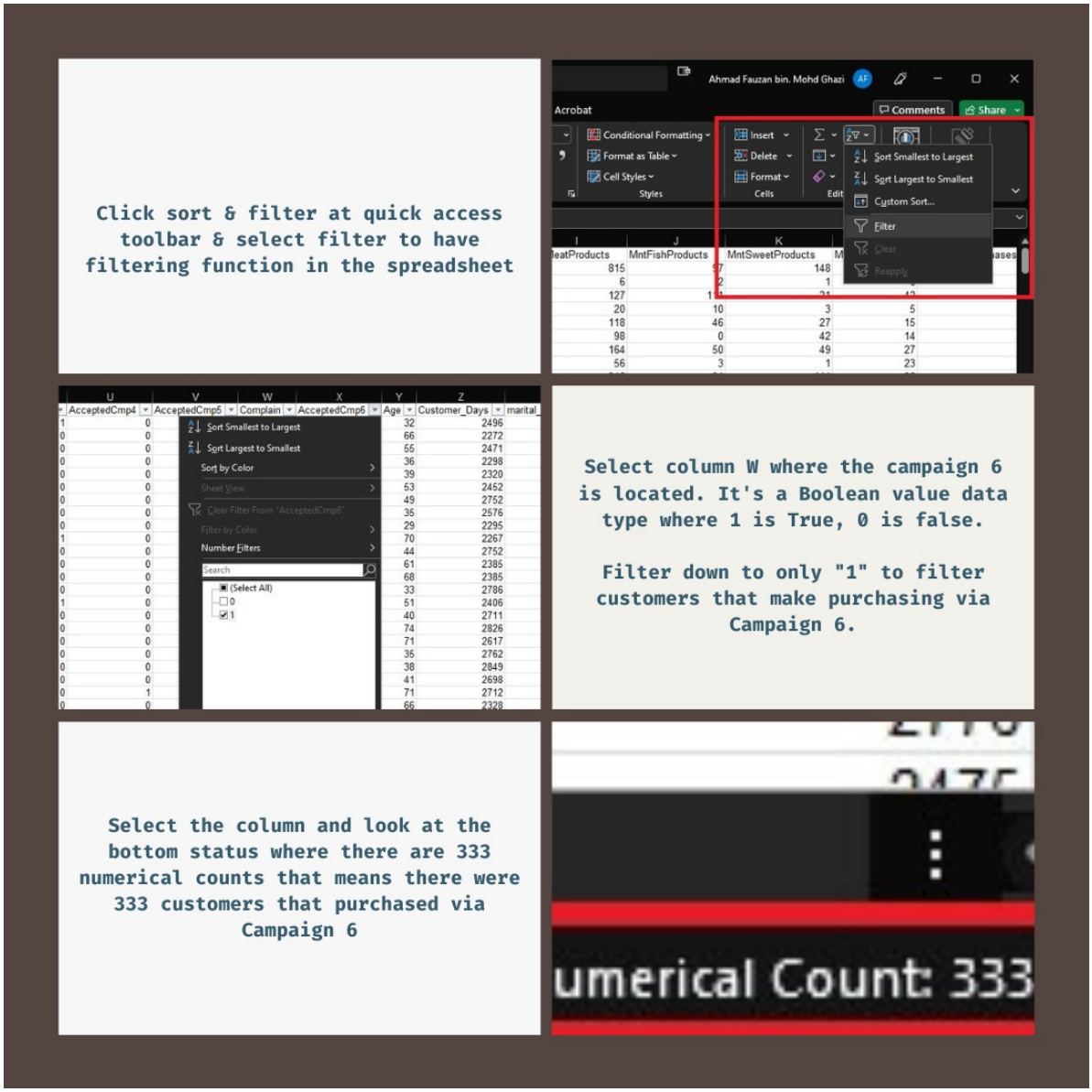
I will format my solution in code or image to differentiate the task and the solution.

Data Cleaning

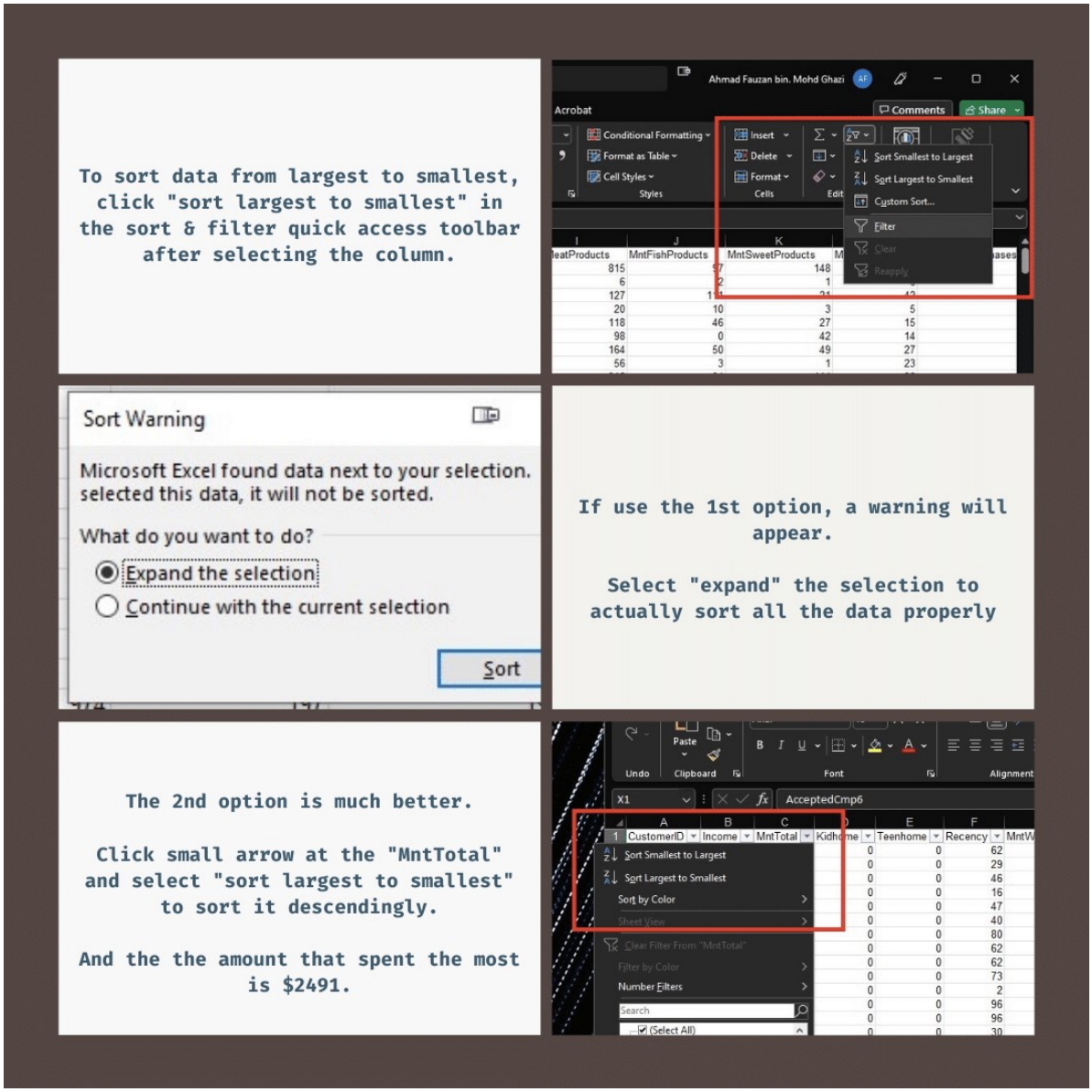
Filtering & Sorting The Data

To start, we used data filtering and sorting to focus on the number of customers who bought into Campaign 6.

We then sorted the data by the total amount spent (column MntTotal) to find the amount of money spent on Campaign 6 that was the highest all by itself.



We found that 333 of the 2205 customers in the data set participated in Campaign 6 and that the highest amount spent on this campaign was $2,491.

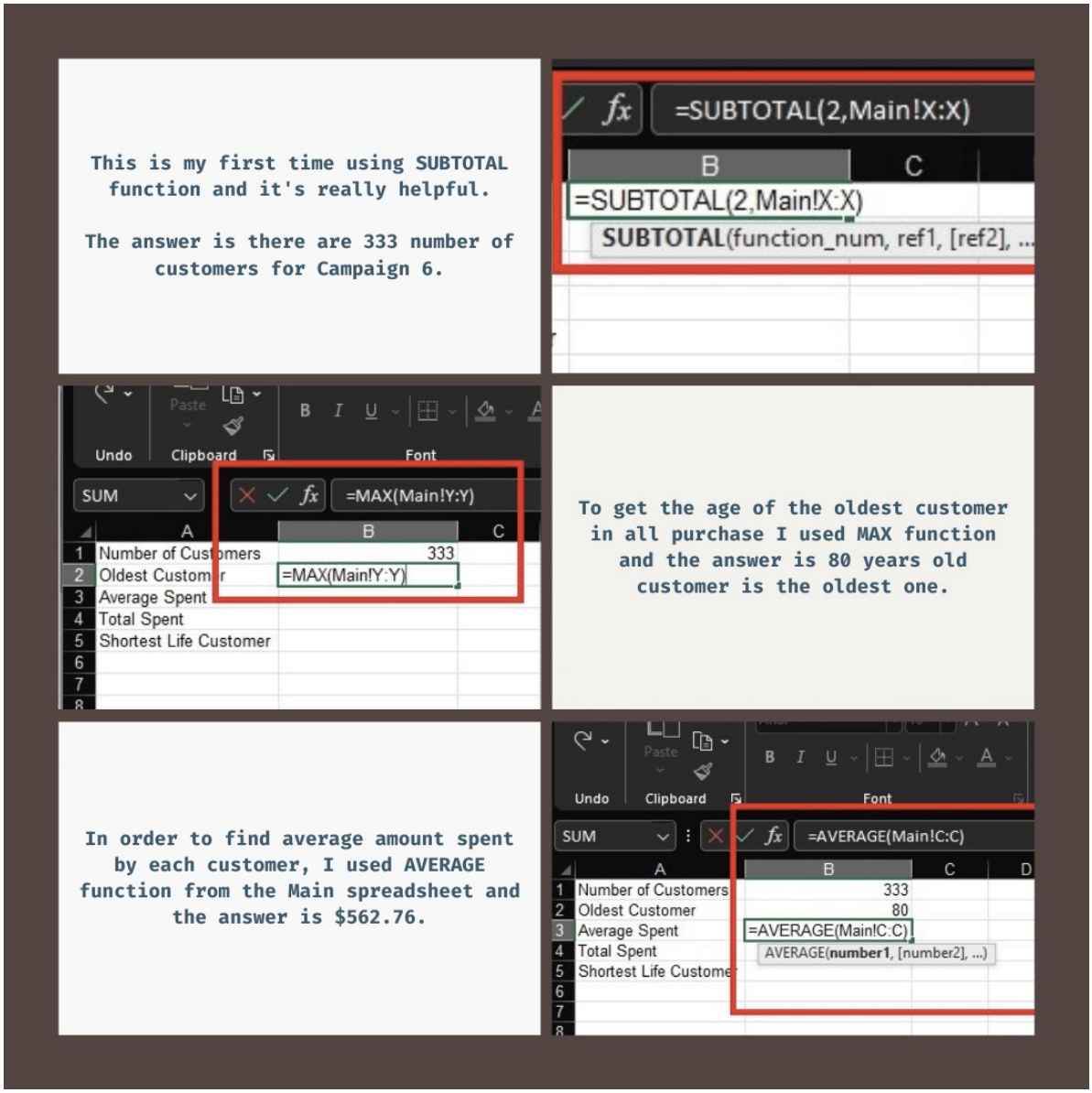


Data Aggregation

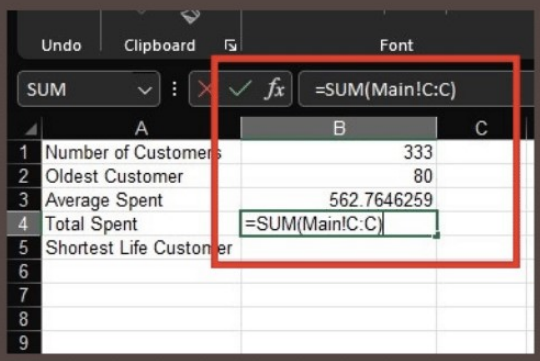
We used several different Excel formulas to determine the answers to the following questions regarding the data in order to get a better overall perspective on the information:

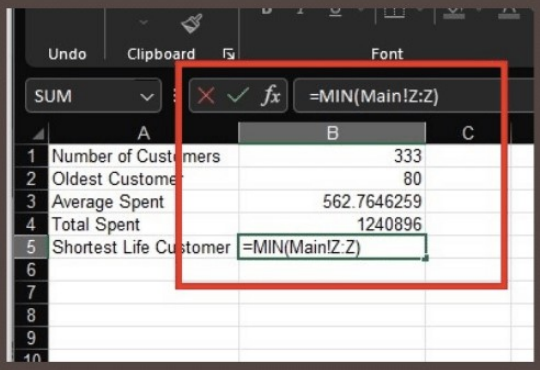
- How many individuals in total are considered to be customers?
- How many people participated in the sixth campaign out of the total amount available?
- Who is the customer on the list? Who is the oldest?
- What is the typical amount that consumers spend when they make a purchase?
- What is the grand total that the customers have spent?
- How long has our most recently acquired customer been a member of our team?

Using each formula's appropriate calculations, we found the following results:



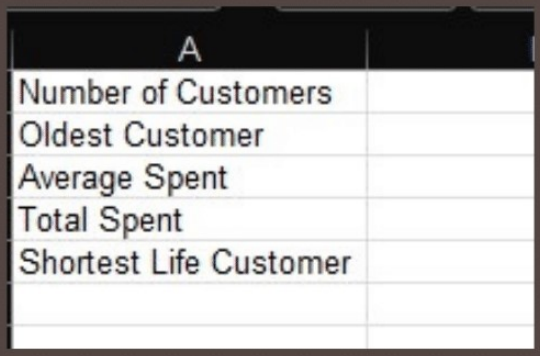
To get the total amount spent by all customers is by using SUM function and the answer is $1,240,896.

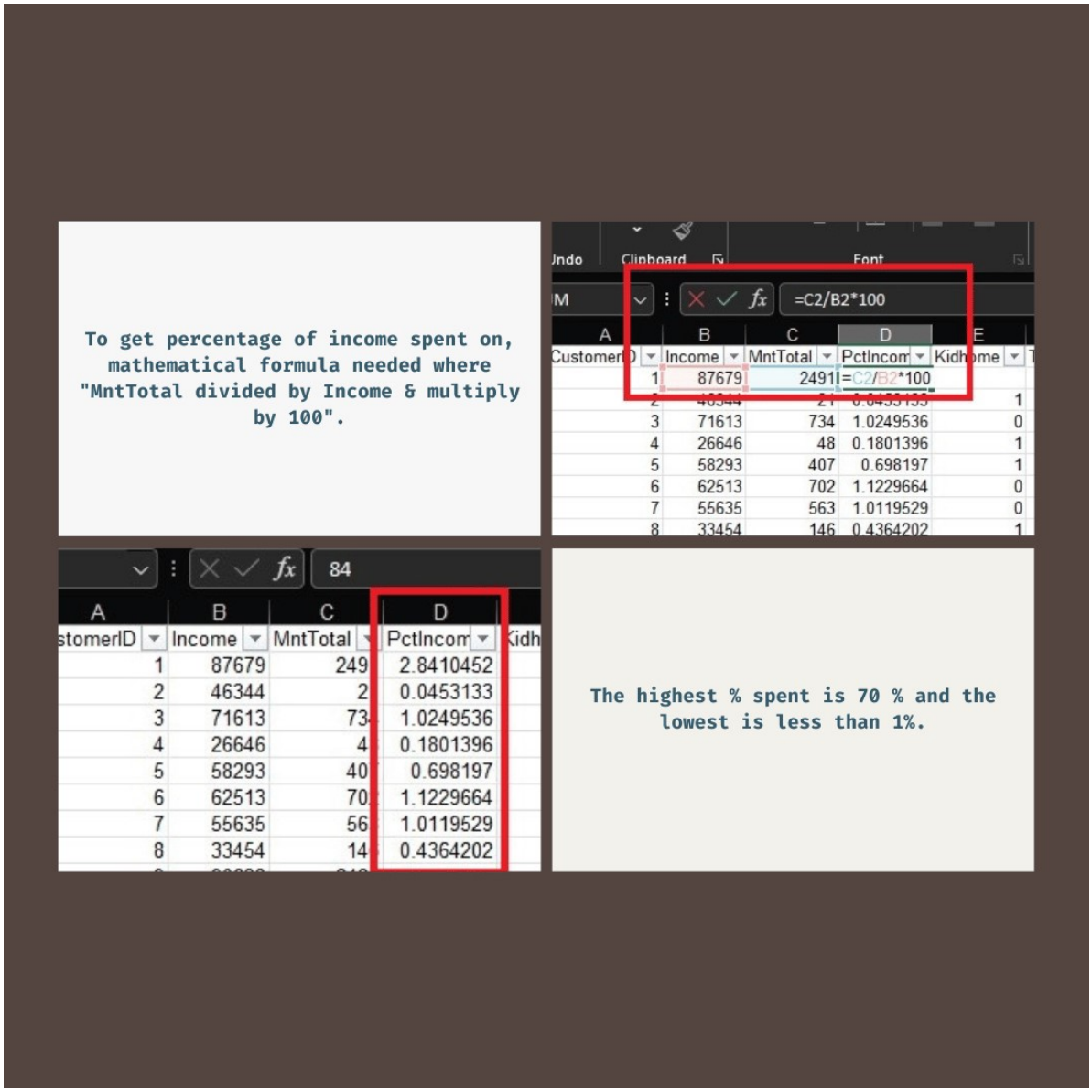




The final question is to find the most recently acquired customer and using MIN function on customers_day column, I found 2,159 is the day and there were 2 customers; customer #188 & #970

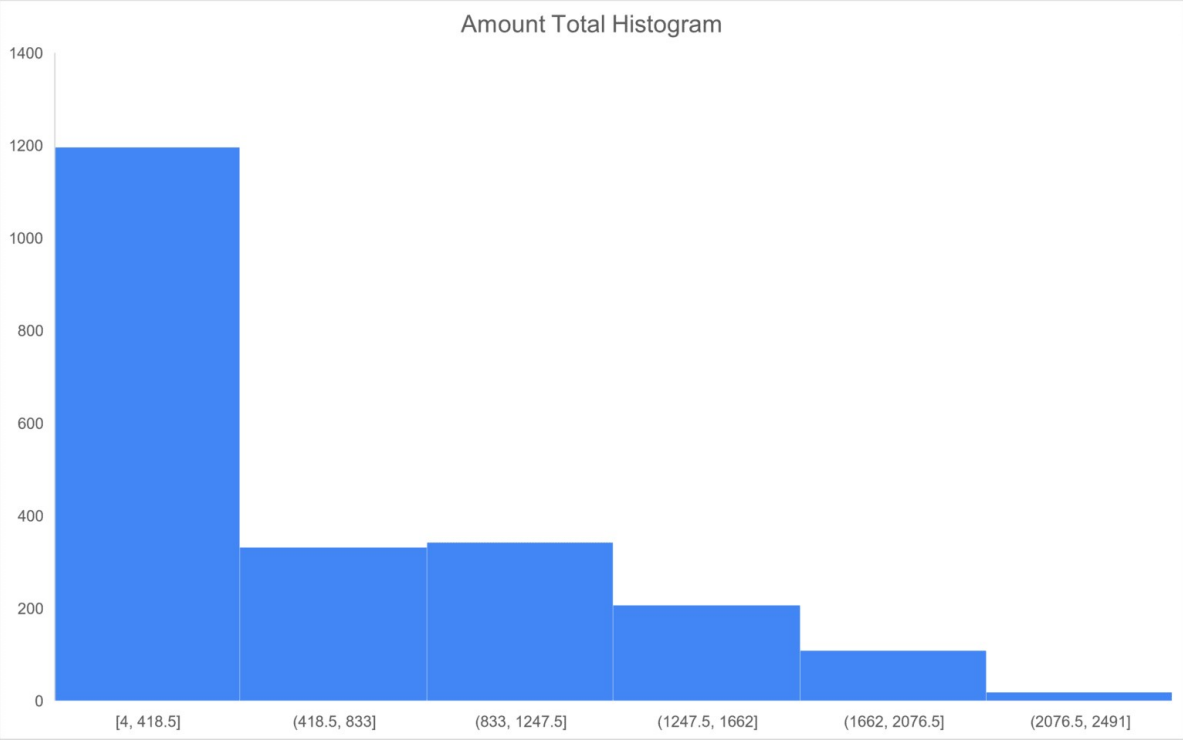
The finding was made in new spreadsheet called 'Summary' to summarize the data via proper findings.





Examining Correlations between Income and Spending

We want to examine and contrast the relationship between income and spending across all customers for the purposes of this section of the analysis.



Based on the scatter plot, we were able to determine that the amount spent on food delivery services was proportional to the individual's income.

Better Aggregation and Analysis

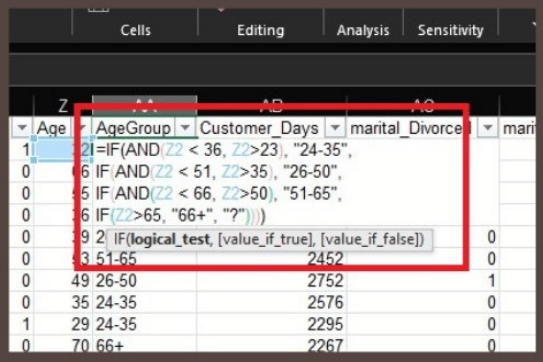
Using a pivot table, we can drill down muchly detail on the number specified by categorising the age group.

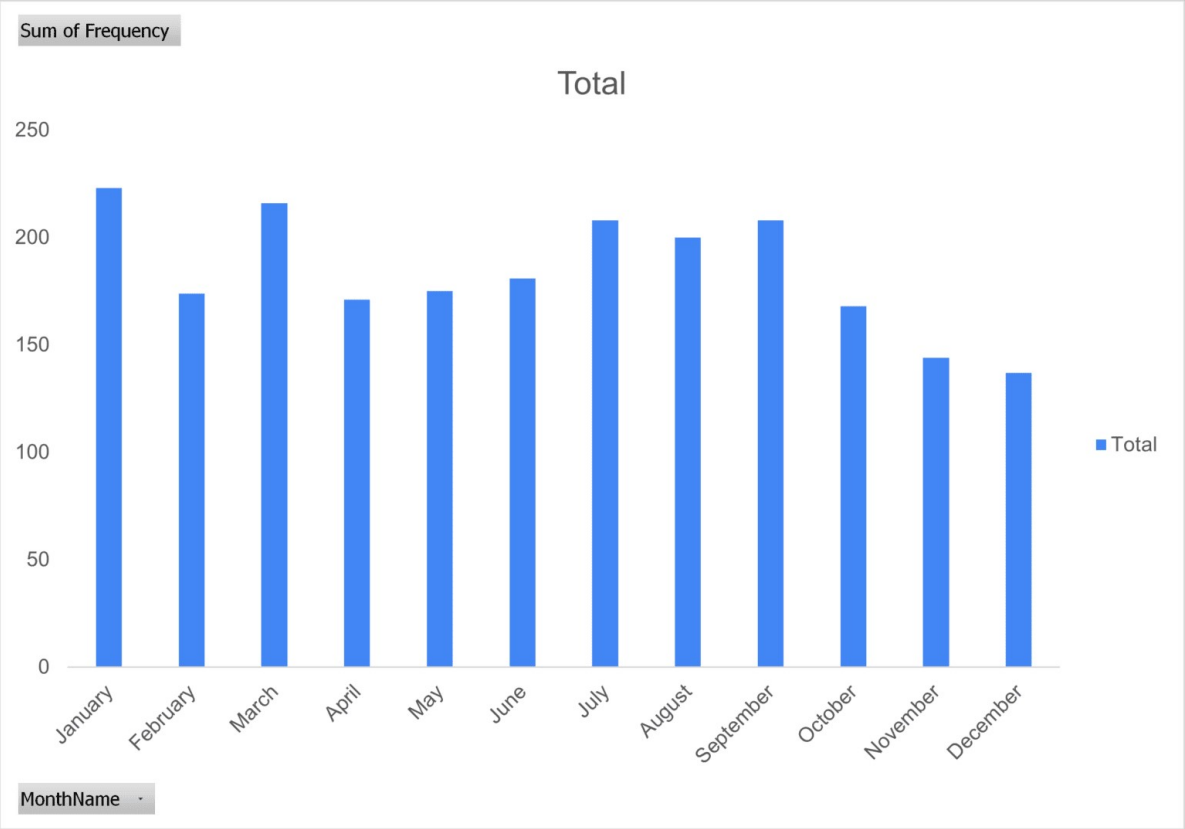
We can also determine which month is the best to run the marketing campaign

aggressively.

Row Labels	Sum of MntTotal	Count of MntTotal	Average of MntTotal
0	279893	221	1266.484163
1	27515	110	250.1363636
2	420	2	210
Grand Total	**307828**	**333**	**924.4084084**

To create an age group with 4 different groups, I used nested IF functions. The other way to do it is by using VLOOKUP.





Discussion & Recommendation

From the campaign marketing analysis, each campaign gave different results.

A recommendation from me to increase higher sales is to target high-income customers aggressively. By looking at the month's expenditure, January, March, August, and September are the months where customers spend the most.

So these months are the best to do marketing aggressively.

Thank you for reading this post!

I hope you enjoyed it, and I would appreciate your feedback on my ongoing career journey.