



Nayeem Talukder



# DATA ANALYSIS PROJECT



# Details

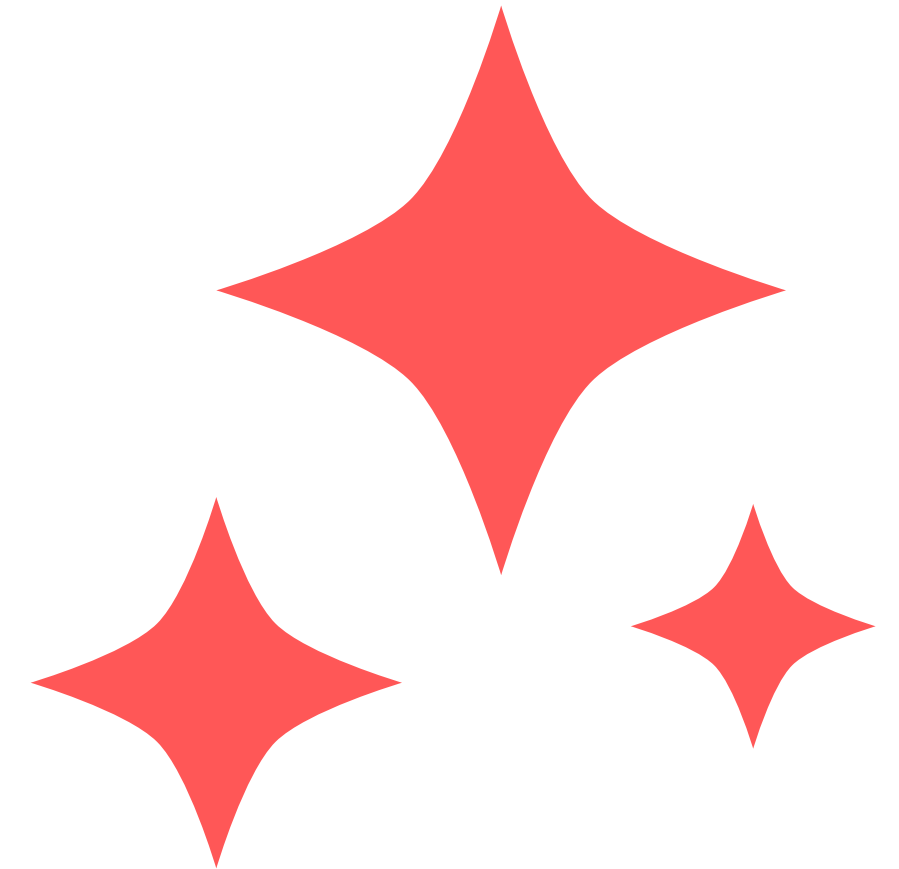
Problem statement

Goals

Data overview

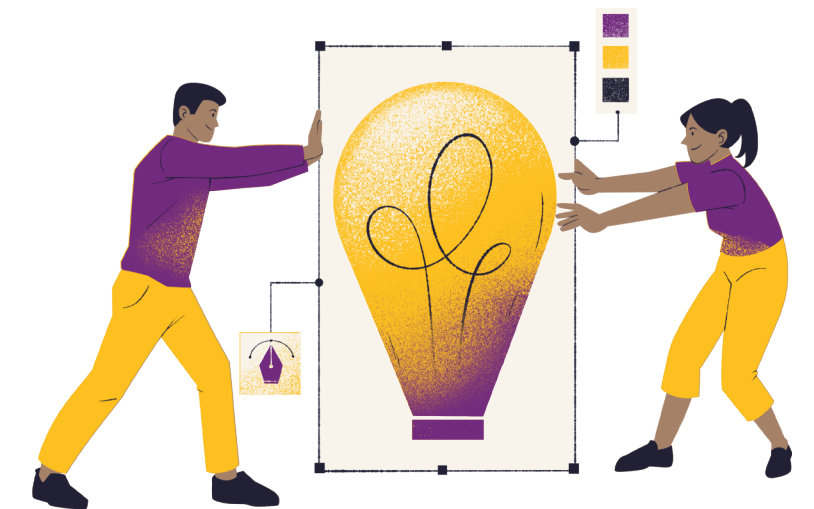
Dashboard overview

Primary analysis



# Problem statement

Analyze Maven Market's sales performance, customer behavior, and product return rates to identify key trends, evaluate achievement against set goals, and recommend strategies for improving profitability and customer satisfaction.





# Goals

**Achieve Monthly Profit Target or Annual Profit Growth**

**Optimize Product Mix**

**Reduce Return Rates**

**Meet Monthly Order Target**

**Focus on High-Sales Regions**

**Retain Top Customers**

**Enhance Member Segmentation**

**Gender-Based Campaigns**

# Data Overview



Table	Key Columns
Transactions	Transaction_date, Quantity
Returns	Return_date, Quantity
Products	Product_brand, Product_name
Stores	Store_type, Store_street_address, store_city
Customers	Full_name, Address, Gender, Yearly_income, Occupation, Member_card
Regions	Sales_districts, Sales_regions

# Dashboard



product_brand	Total order	Total profit	Return Rate
ADJ	198	\$1,178.00	1.29%
Akron	356	\$1,239.04	1.17%
American	2384	\$9,818.70	0.92%
Amigo	326	\$1,622.41	1.28%
Applause	355	\$1,520.26	1.17%
Atomic	1345	\$4,625.09	1.02%
BBB Best	5254	\$19,374.93	0.90%
Best	714	\$3,207.16	1.06%
Best Choice	6000	\$25,901.32	0.84%
Better	4073	\$13,192.66	1.04%
Big City	355	\$643.37	0.71%
Big Time	5797	\$23,710.27	0.97%
Bird Call	3224	\$11,343.25	0.84%
Black Tie	374	\$780.56	0.78%
Blue Label	3665	\$14,737.44	1.03%
Blue Medal	808	\$3,605.97	0.91%
Booker	3454	\$13,023.52	0.78%
Bravo	3689	\$16,321.52	0.85%
Carlson	3724	\$15,266.33	1.08%
Carrington	5622	\$21,467.59	0.89%
CDR	4574	\$18,007.91	1.00%
Choice	1333	\$3,496.74	0.87%
Club	3222	\$13,181.07	0.99%
Total	269720	\$1,052,818.78	0.99%

#### Top product orders (Brand)

ADJ

#### Top product orders (Store)

Store 13

#### Month Total retail price

January	\$143,694.97
February	\$138,556.79
March	\$148,249.77
April	\$137,654.39
May	\$139,640.10
June	\$142,381.77
July	\$149,190.32
August	\$140,917.55
September	\$145,204.57
October	\$134,778.18
November	\$167,151.55
December	\$177,126.48
Total	\$1,764,546.44

#### Monthly profit

\$71.68K✓  
Goal: 67.87K (+5.61%)

#### Monthly order

18325✓  
Goal: 17339 (+5.69%)

#### Monthly return

569!  
Goal: 563 (-1.07%)

#### Region

Canada West

Central West

Mexico Central

Mexico South

Mexico West

North West

South West

View Product Detail





BBB Best

Current month Order vs. Target



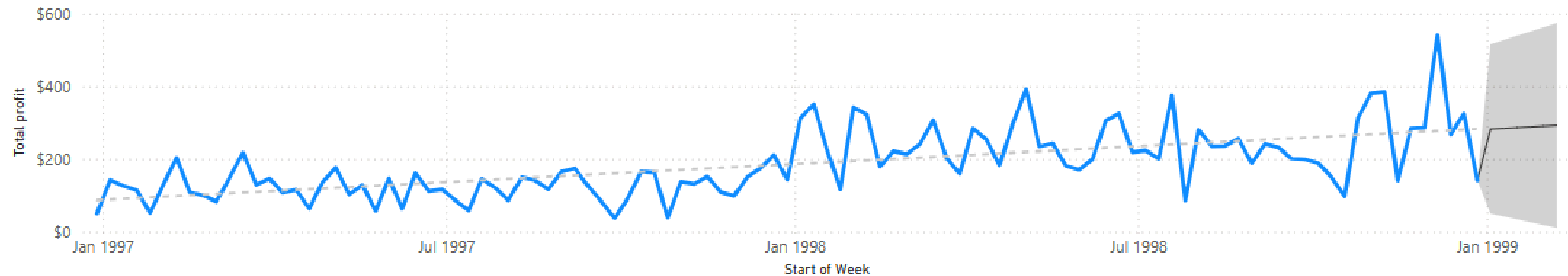
Current month Profit vs. Target



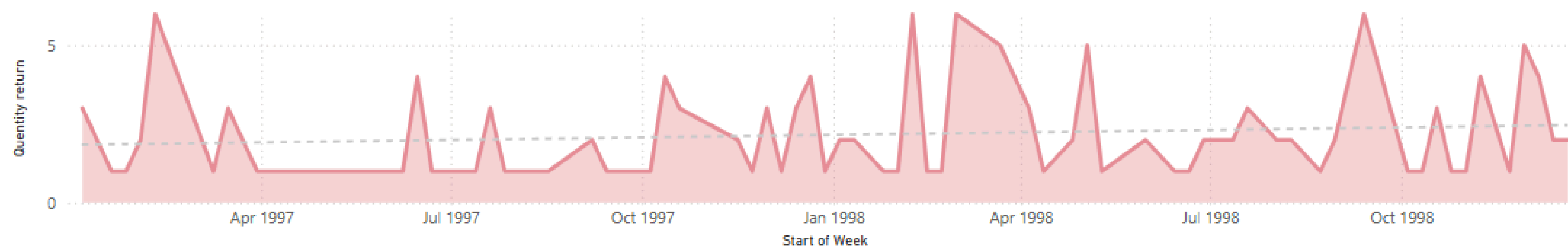
Current month Return vs. Prev Return



Weekly profit

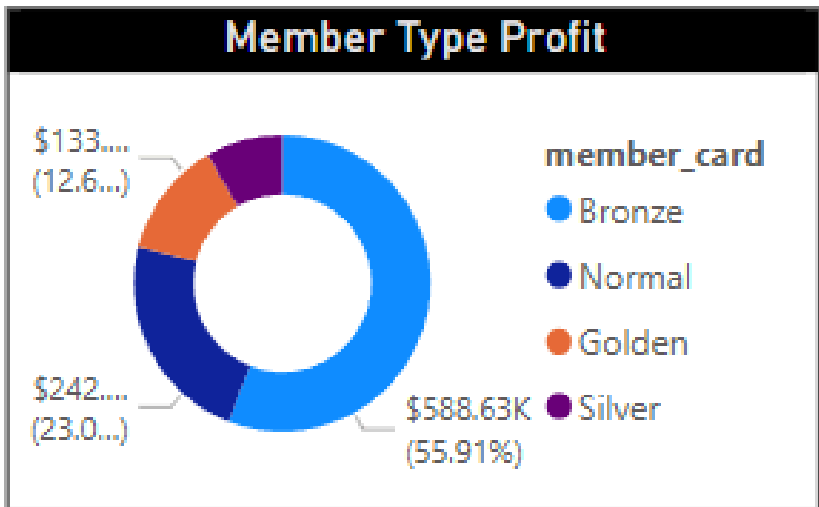
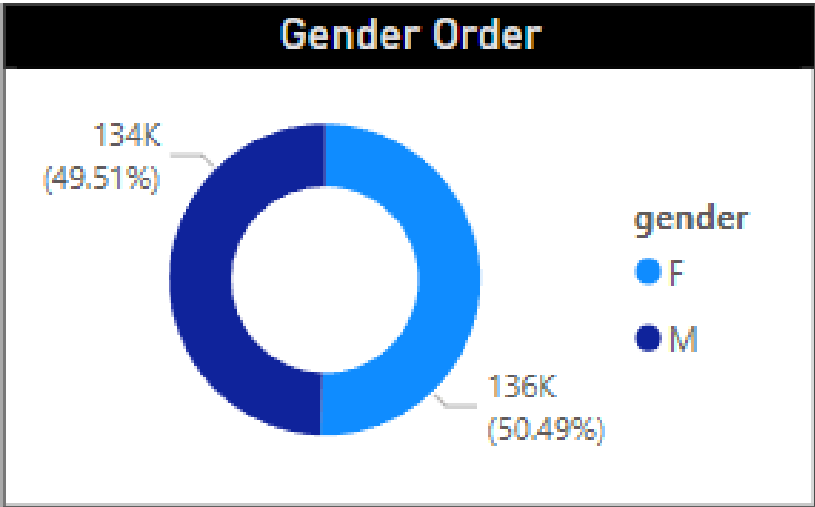


Weekly return

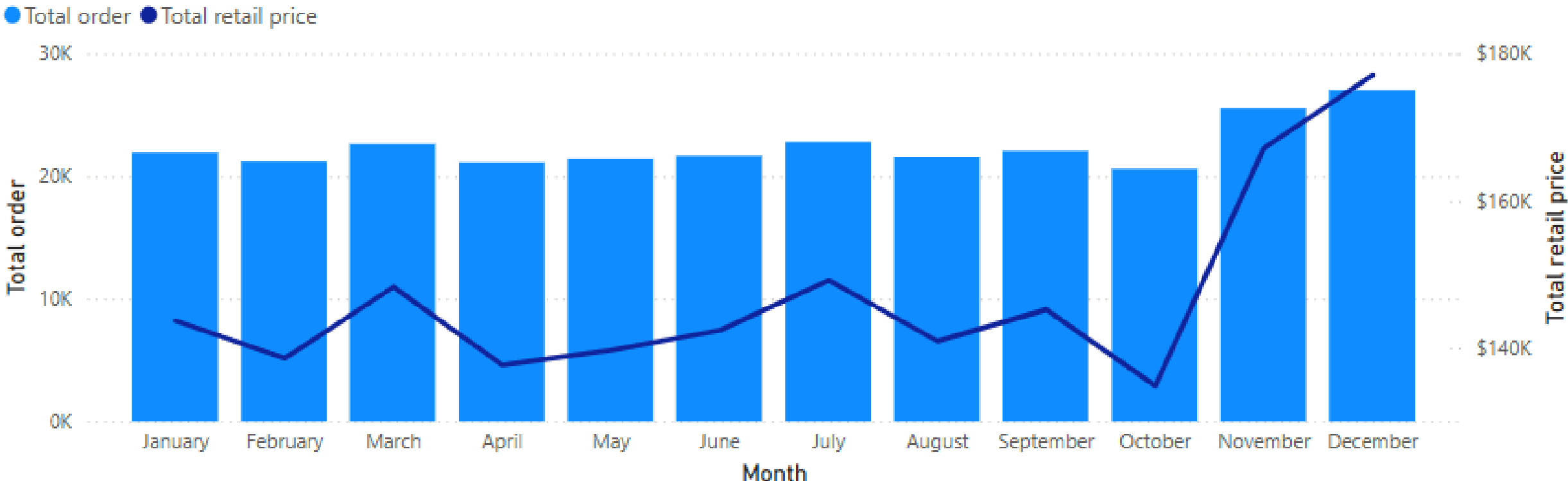




full name	Total order	Tc	t	c	...
A. Catherine Binkley	46				\$301.08
A. Joyce Jarvis	14				\$86.00
Aaron Carabellos	6				\$47.44
Aaron Conklin	7				\$47.26
Aaron Cope	2				\$7.88
Aaron Haddix	5				\$27.55
Aaron Keane	18				\$124.28
Aaron Lemay	19				\$108.79
Aaron McDonnell	260				\$1,907.90
Aaron Quintan	43				\$343.77
Aaron Shehorn	6				\$39.26
Aaron Story	76				\$499.95
Aaron Van Ness	2				\$11.29
Aaron Whitteker	88				\$559.90
Aaron Young	17				\$101.54
Abbie Carlbom	153				\$1,322.25
Abe Tramel	21				\$111.24
Abel Hawkins	46				\$327.01
Abel Young	54				\$452.06
Abigail Foster	19				\$126.40
Abraham Burns	46				\$278.33
Abraham Swearingin	11				\$58.78
Achari Harp	5				\$40.72
Adam Bloomfeild	12				\$74.32
Adam Reynolds	80				\$595.35
Adam Suggett	34				\$211.09
Adam Tschann	27				\$152.96
Adelaide Spence	16				\$123.43
Adele Barbuscia	8				\$67.75
Adele Snyder	106				\$656.05
Adeline Chun	27				\$183.20
Adeline Verna	7				\$48.57
Adoli Lewis	7				\$49.65
<b>Total</b>	<b>269720</b>				<b>\$1,764,546.44</b>



Total order and Total retail price by Month



Top Customer Name

Dawn Laner

Order

301

Profit

\$1.34K

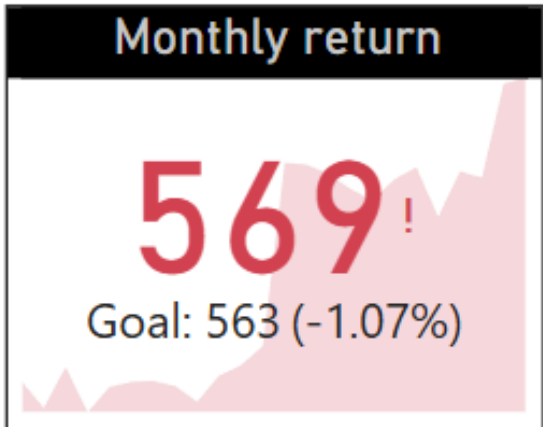
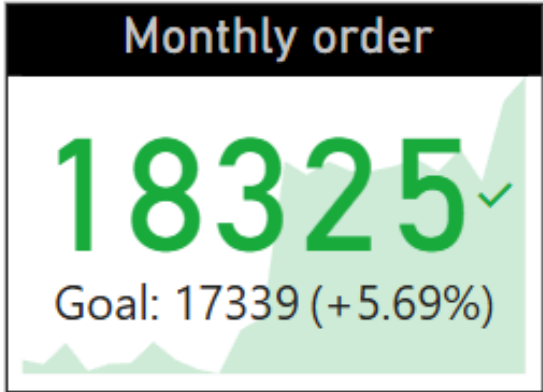
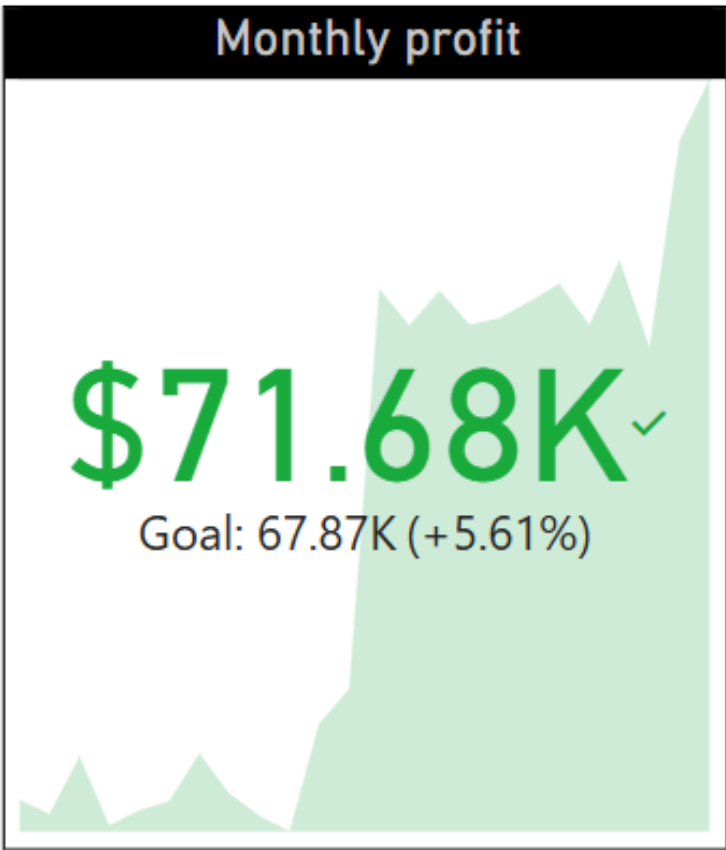


# Primary Questions

1. Which brand and store have the most orders?



2. Is monthly profit and order target fulfill?



Previous month VS current month

- Here green colour means target fulfills and red colour means target not fulfilled

3. Which product brands have the highest total orders, and how do their profitability and return rates compare to identify potential inefficiencies or opportunities for optimization ?

product_brand	Total order	Total profit	Return Rate
Hermanos	8071	\$33,167.27	1.11%
Tell Tale	7694	\$29,925.59	1.00%
Ebony	7685	\$29,749.45	0.95%
Tri-State	7438	\$29,064.76	1.02%
High Top	7153	\$28,502.83	1.01%
Nationeel	6499	\$27,446.16	1.11%
Fast	6188	\$24,746.78	1.09%
Fort West	6175	\$23,951.11	0.92%
Horatio	6121	\$25,589.28	1.25%
Best Choice	6000	\$25,901.32	0.84%
Sunset	5856	\$20,802.99	1.04%
Red Wing	5806	\$23,623.72	1.09%
Big Time	5797	\$23,710.27	0.97%
Carrington	5622	\$21,467.59	0.89%
Cormorant	5382	\$22,502.22	0.90%
High Quality	5323	\$24,007.67	1.03%
BBB Best	5254	\$19,374.93	0.90%
Imagine	5225	\$21,741.70	0.98%
Denny	5223	\$23,049.58	0.91%
Golden	5218	\$19,403.25	0.91%
PigTail	5180	\$17,338.44	0.96%
Super	5120	\$19,600.20	0.94%
Landslide	4951	\$15,986.58	0.97%
Total	269720	\$1,052,818.78	0.99%

**Matrix**  
**Product\_brand**  
**VS**  
**(Total order, Total profit and Return Rate)**

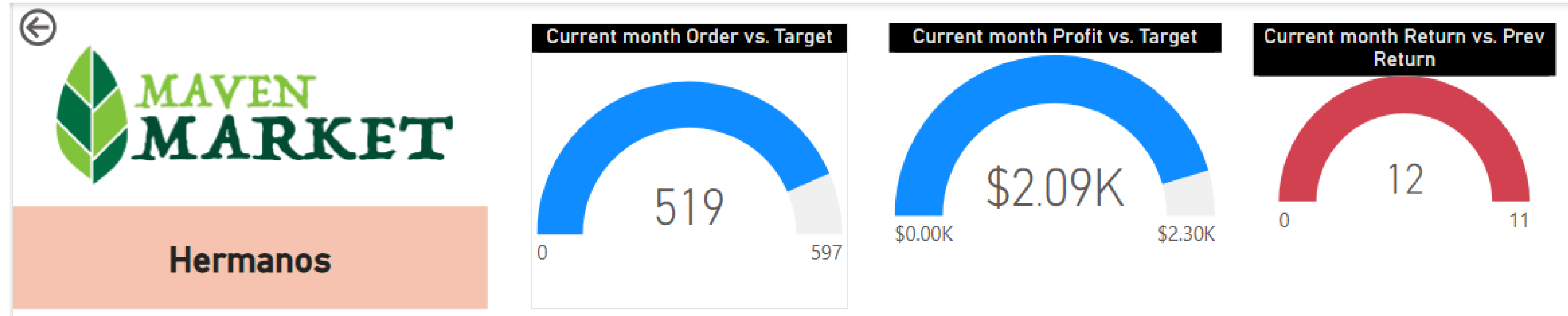
We saw that top order product name is Hermanos, it's profit \$33,167.27 and return Rate's 1.11%

## 4. Which month retail price is most and lowest?

Month	Total retail price
January	\$143,694.97
February	\$138,556.79
March	\$148,249.77
April	\$137,654.39
May	\$139,640.10
June	\$142,381.77
July	\$149,190.32
August	\$140,917.55
September	\$145,204.57
October	\$134,778.18
November	\$167,151.55
December	\$177,126.48
<b>Total</b>	<b>\$1,764,546.44</b>

- Highest: December (\$177,126.48, ~10% of annual revenue).
- Lowest: October (\$134,778.18, ~7.6% of annual revenue).
- Seasonal Insight: Year-end holidays likely drive December's spike, while October's dip may reflect reduced post-summer demand.

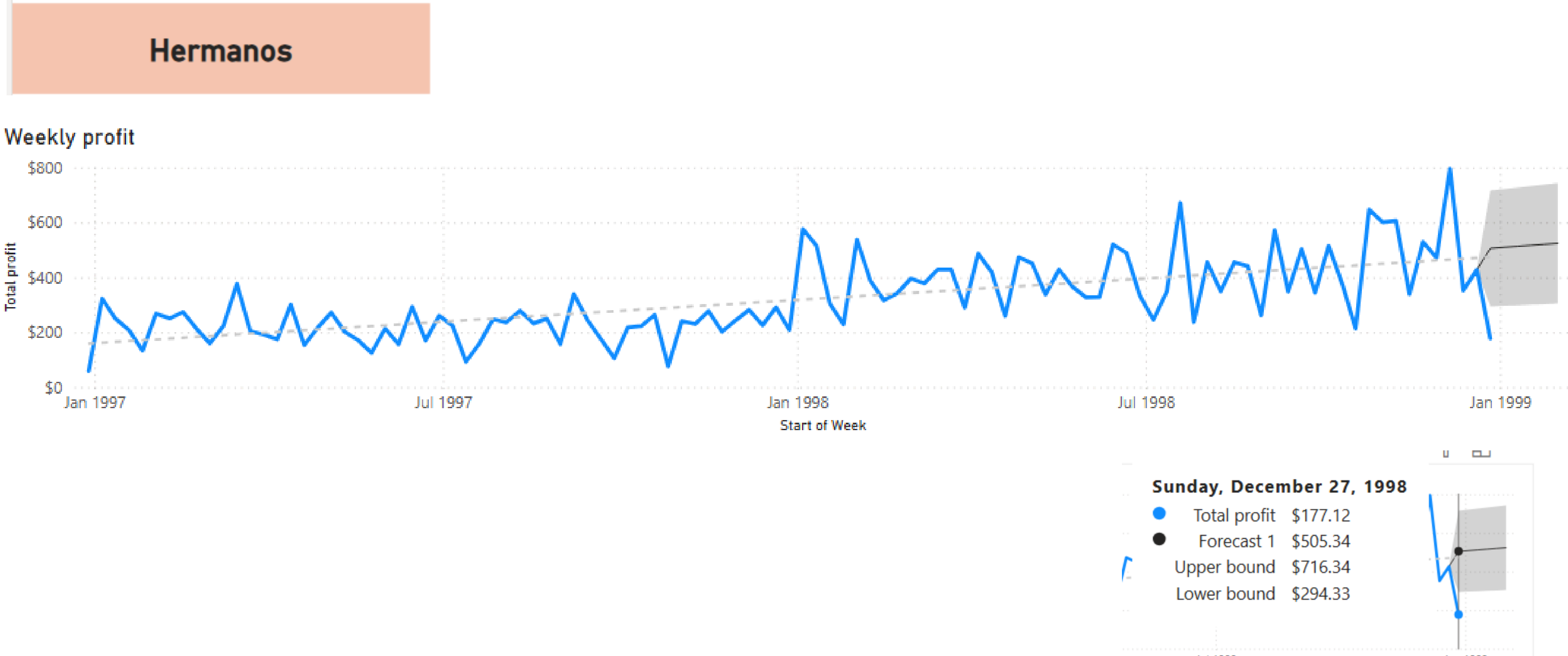
5. Has the Hermanus brand fulfilled its monthly targets for orders, profit, and current return rate?



The brand missed both order and profit targets for the month

Return rate is increase

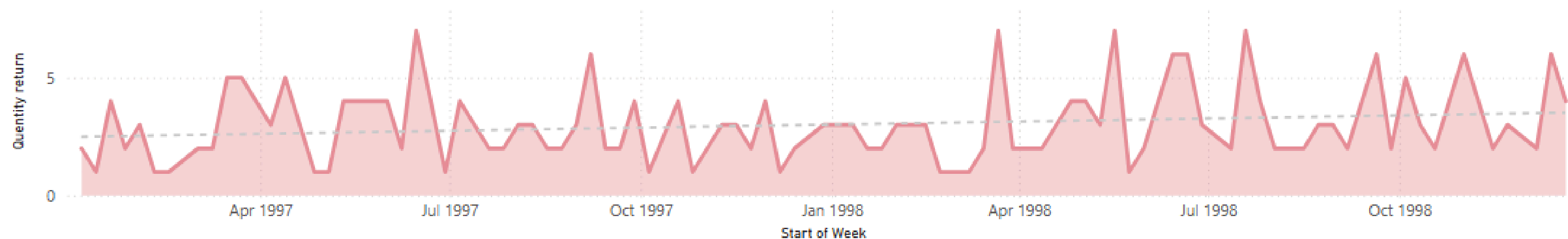
6. How did the weekly profit trend for Hermanus brand change between January 1997 and January 1999 and forecast for next week?



6. How did the weekly quantity return for Hermanos vary between April 1997 and October 1998?

**Hermanos**

Weekly return





7. What is the name of the customer with the highest number of orders, along with their monthly order quantity and associated profit?

Top Customer Name
Dawn Laner

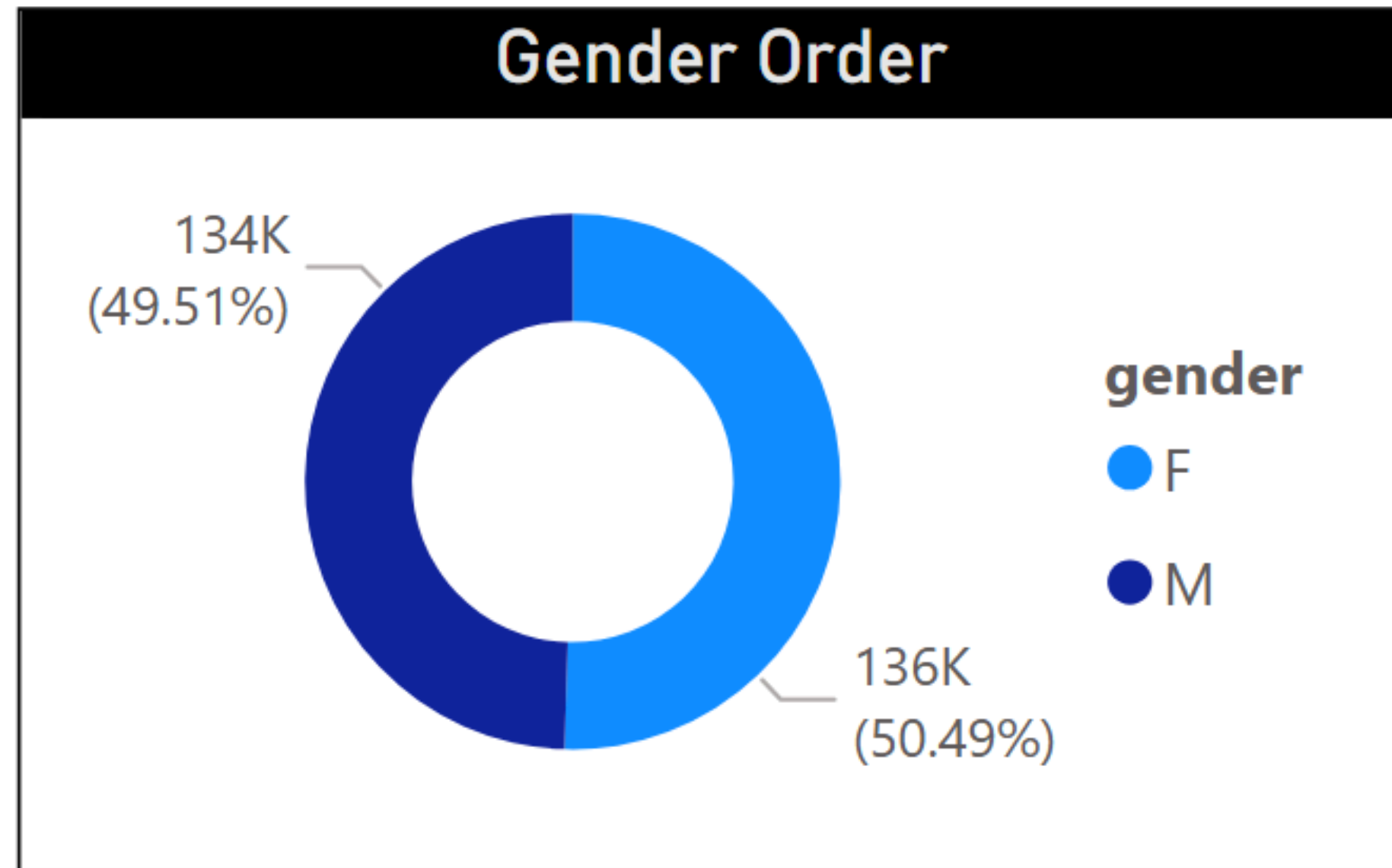
Order
301

Profit
\$1.34K

8. Provide a detailed breakdown of customers who place the most orders, including their monthly order volume and the retail prices of the products they purchase.?

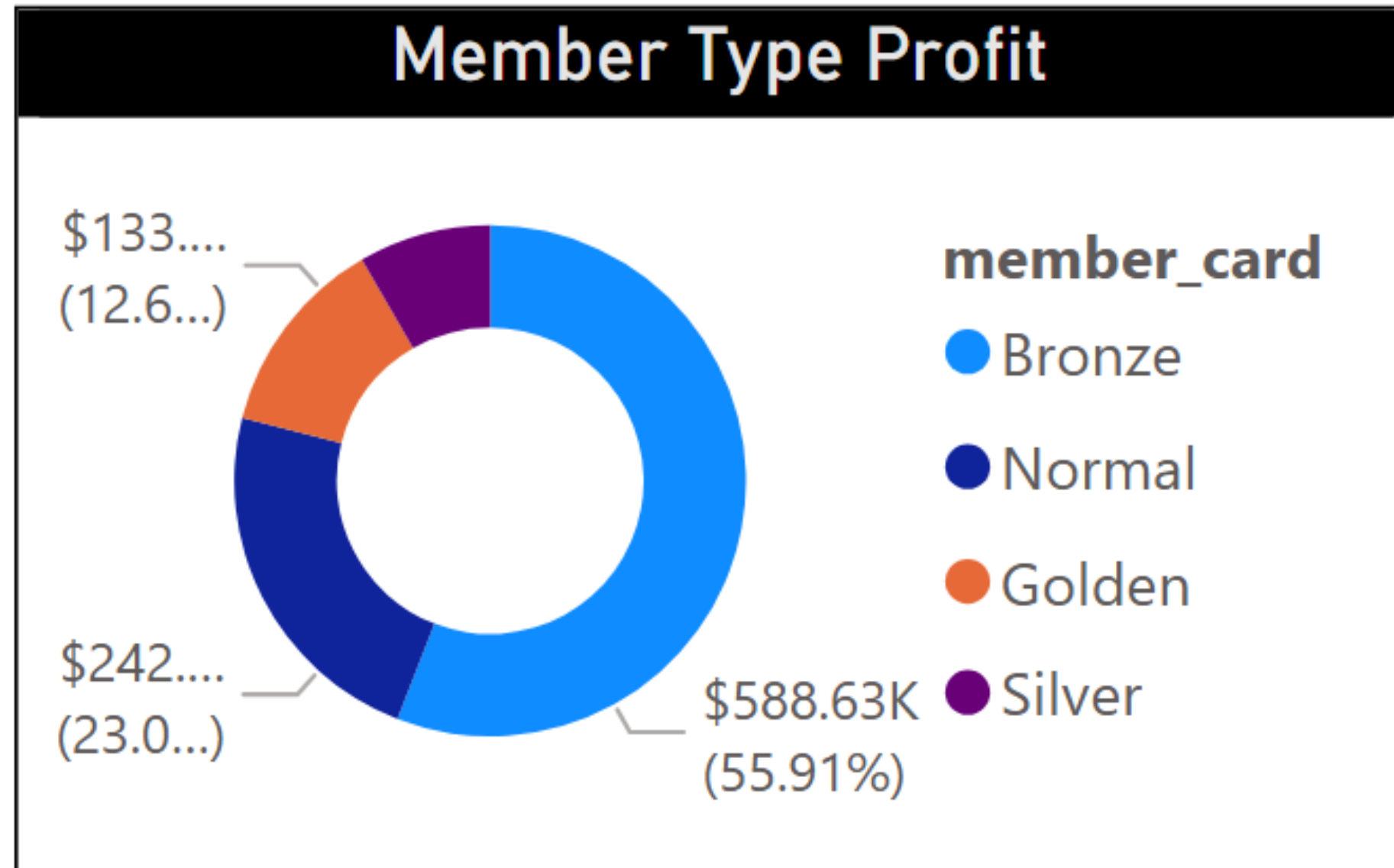
full name	Total order	Total retail price
Dawn Laner	301	\$1,995.21
James Horvat	297	\$2,121.31
Ida Rodriguez	290	\$2,235.43
Merridee Archuleta	279	\$1,763.58
Mary Francis Benigar	275	\$1,973.79
Lucy Flowers	267	\$1,750.14
Bernadette Marschang	265	\$1,713.75
George Todero	262	\$1,664.45
Aaron McDonnell	260	\$1,907.90
Eric Winters	257	\$1,776.27
Joann Mramor	251	\$1,826.31
Jack Zucconi	241	\$1,547.24
Patricia Towns	241	\$1,585.12
Kristin Miller	239	\$1,738.93
Stanley Marks	237	\$1,509.47
Zelma Pereira	236	\$1,436.54
Wildon Cameron	233	\$1,955.25
Peter Swaim	231	\$1,423.59
Beth Ohnheiser	230	\$1,500.32
Curtis Pollard	228	\$1,459.61
Christine Brubaker	226	\$1,419.32
Kendrick Stephens	226	\$1,446.36
Shirley Ortiz	226	\$1,583.94
Robert Vaughn	225	\$1,429.23
Scott Littleford	224	\$1,716.15
Mary Smith	223	\$1,595.58
Natasha Staton	223	\$1,420.56
Linda Combs	222	\$1,389.46
Frank Darrell	221	\$1,628.36
Yolanda Pannell	220	\$1,444.01
Martha Griego	219	\$1,386.47
Roberta Bozeman	218	\$1,380.96
Sonja Sommers	218	\$1,406.02
<b>Total</b>	<b>269720</b>	<b>\$1,764,546.44</b>

9. Do male or female customers place the most orders?



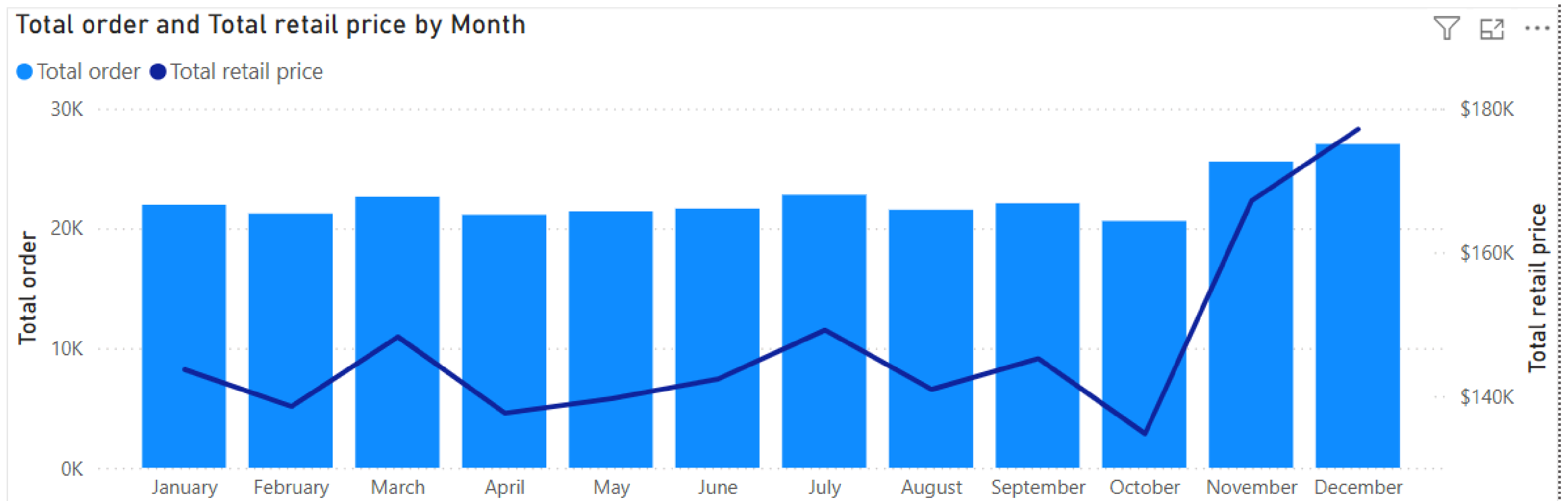
We saw that Female order most

9. Which type of member generates the most profit?



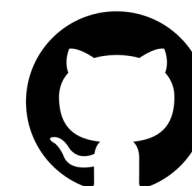
Brange type member generate profit most

9. How do total orders and total retail price trend month-by-month, and which months show the strongest correlation (or discrepancy) between these two metrics?



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# Thank you



**GitHub**

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