



Kampus
Merdeka
INDONESIA JAYA

REVOU TECH ACADEMY

DATA ANALYTICS

CAPSTONE PROJECT

CANDY DISTRIBUTION

MERAUKE 5*





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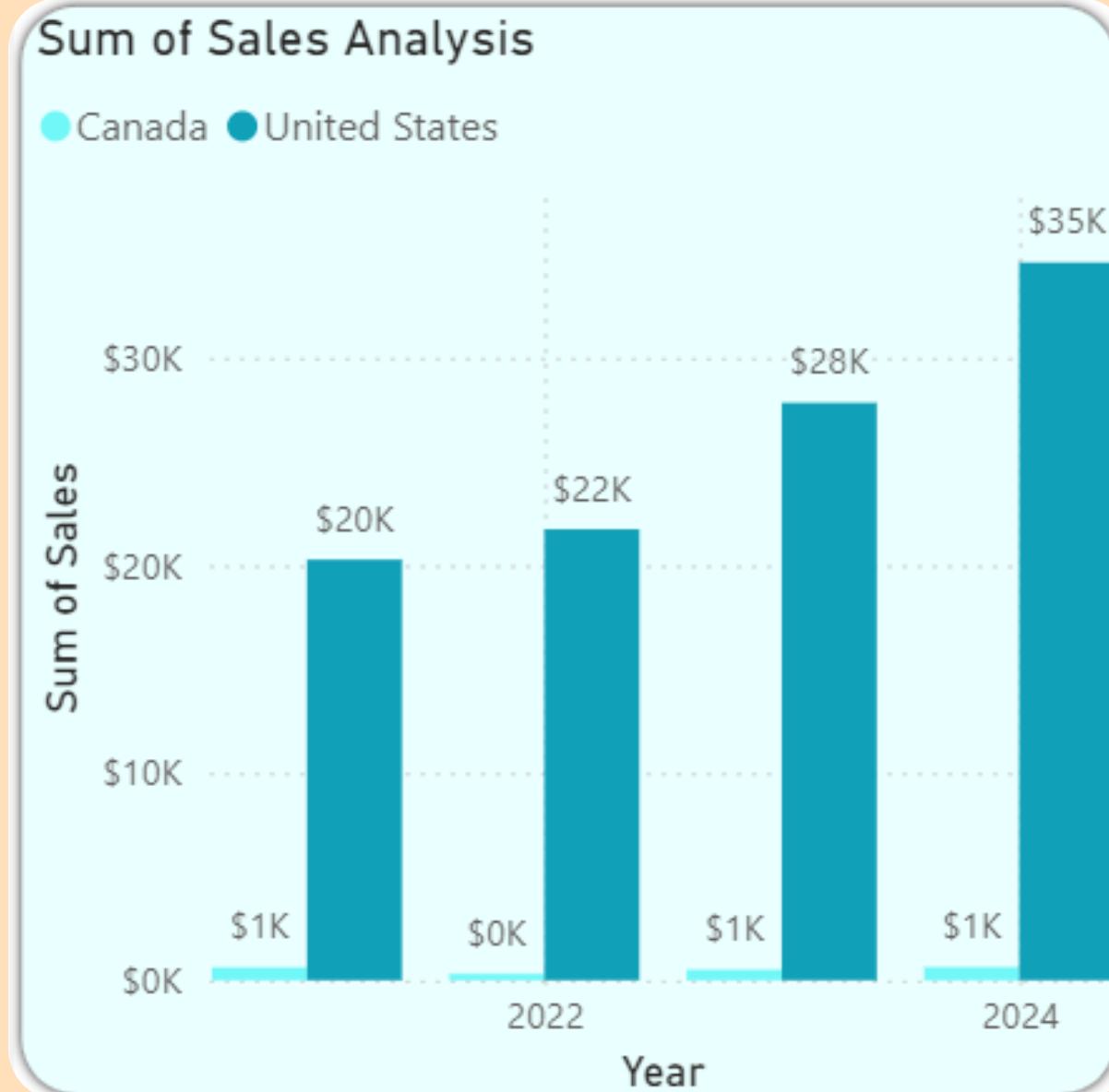


OUR AGENDA

- PROJECT BACKGROUND
- METHODOLOGY
- DATASET
- PROJECT GOAL
- ROOT CAUSE ANALYSIS (RCA)
- DATA CLEANING
- DASHBOARD
- ANALYSIS
- CONCLUSION
- APPENDIX



PROJECT BACKGROUND



\$104.41K

Revenue in United State

\$2.07K

Revenue in canada

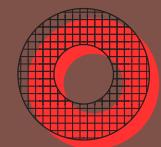
Candy factories in the United States see an **increase** in sales every year, with a **large gap** between sales in the **United States** being much higher compared to **Canada**.

there's a possibility that the sales gap between Canada and the US will continue to grow.

Problem statement

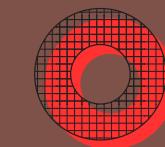
How To **increase** the sales turnover of **chocolate candy** in Canada by **20%** in the next **1 year**

PROJECT GOAL



Objective

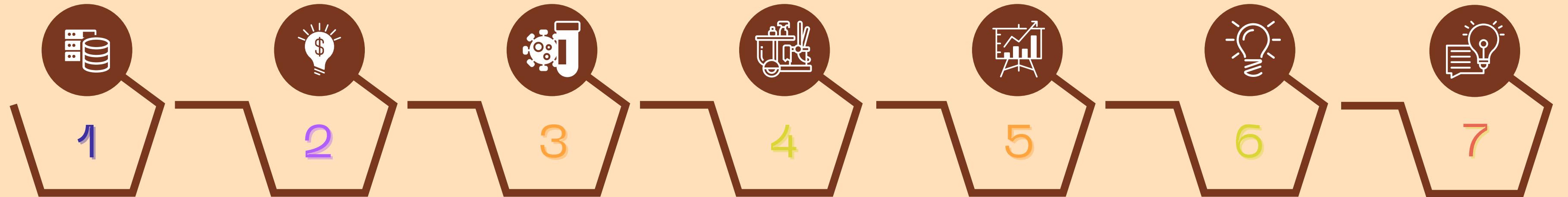
To increase the sales turnover
of chocolate candy in Canada
by 20% in the next 1 year



Scope

Using data for the past 4 years
starting from 2021 to 2024





Step 1

Fetching the Data

Step 2

Understand the business

Step 3

Make hypothesis

Step 4

Clean the data for further analysis

Step 5

Visualize the key metrics

Step 5

insight Summary

Step 7

Recomendation



METHODOLOGY



- Data derived from Data Maven Analytics
- Geospatial factory-to-customer sales and shipment data for a national candy distributor in the US, including customer and factory location information, orders & sales targets, and product details.
- Data from January 03, 2021 to December 30, 2024

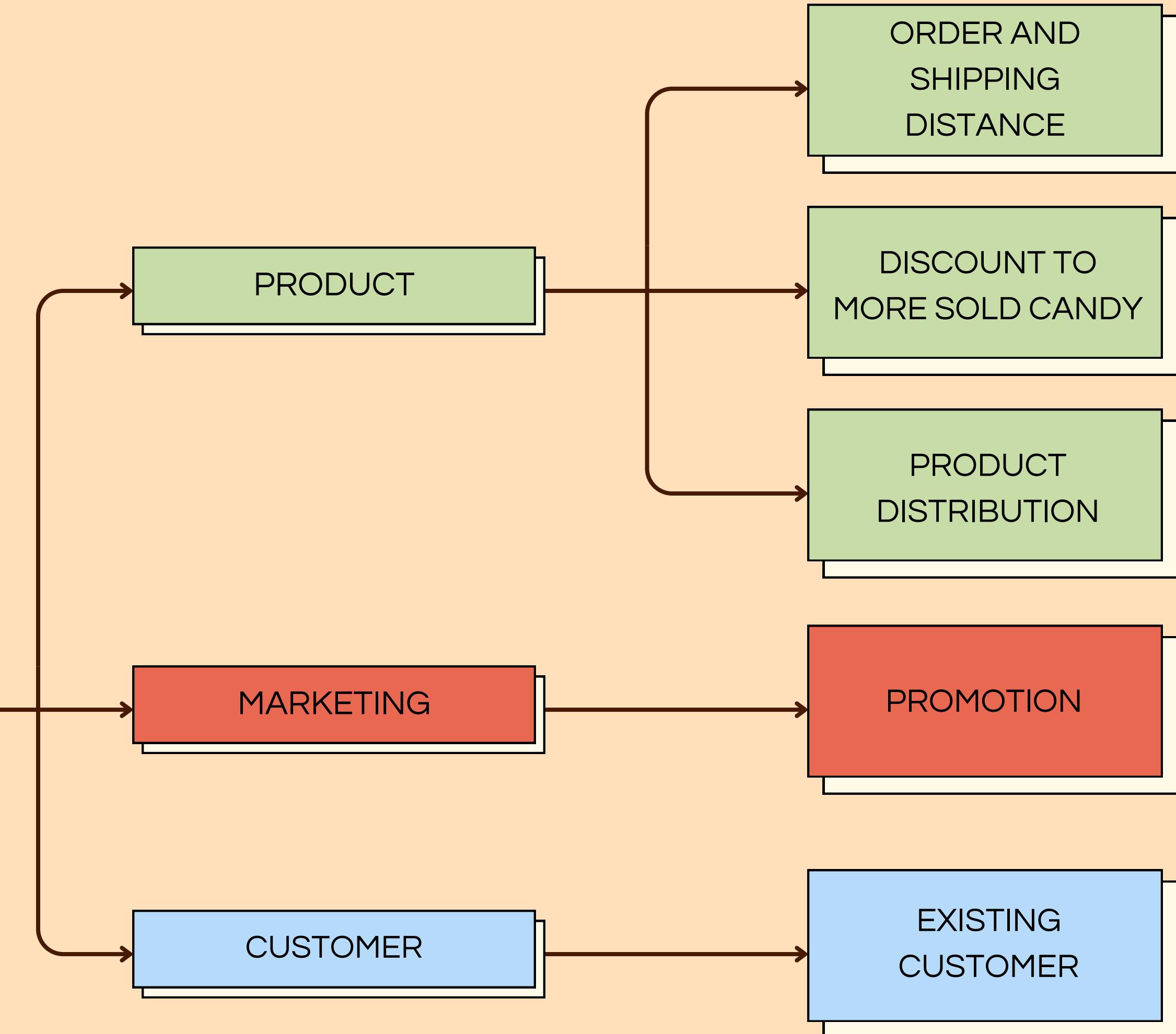
A	B	C	D	E	F	G	H	I	J	K	L
Row ID	Order ID	Order Date	Ship Date	Ship Mode	Customer ID	Country/Reg	City	State/Prov	Postal Code	Division	Region
2	9329	US-2024-118213	2024-11-05	2030-04-30	First Class	118213	United States	Greenwood	Indiana	46142	Other
3	2655	US-2022-162201	2022-06-08	2027-12-03	Standard Class	162201	United States	Saint Petersburg	Florida	33710	Other
4	3634	US-2022-111948	2022-11-11	2028-05-03	Same Day	111948	United States	Detroit	Michigan	48234	Other
5	20	US-2021-149020	2021-01-10	2026-07-08	Standard Class	149020	United States	Springfield	Virginia	22153	Other
6	4193	US-2023-134474	2023-01-05	2028-06-29	Second Class	134474	United States	Jacksonville	Florida	32216	Other
7	8148	US-2024-142342	2024-07-17	2030-01-09	Second Class	142342	United States	Apple Valley	California	92307	Other
8	1300	US-2021-132542	2021-10-06	2027-03-31	Second Class	132542	United States	Omaha	Nebraska	68104	Other
9	6630	US-2023-160745	2023-12-11	2029-06-07	Second Class	160745	United States	Vancouver	Washington	98661	Other
10	829	US-2021-150126	2021-07-27	2027-01-23	Standard Class	150126	United States	New York City	New York	10035	Other
11	6216	US-2023-164196	2023-11-11	2029-05-09	Standard Class	164196	United States	Noblesville	Indiana	46060	Other
12	1988	US-2021-120243	2021-12-27	2027-06-22	Second Class	120243	United States	Los Angeles	California	90004	Other
13	332	US-2021-102652	2021-04-06	2026-10-03	Standard Class	102652	United States	Los Angeles	California	90049	Other
14	5306	US-2023-128307	2023-07-25	2029-01-18	Standard Class	128307	United States	Houston	Texas	77041	Other
15	8518	US-2024-137596	2024-09-02	2030-02-28	Standard Class	137596	United States	Jackson	Michigan	49201	Other
16	5340	US-2023-156265	2023-08-02	2029-01-24	Second Class	156265	United States	Los Angeles	California	90032	Other
17	8596	US-2024-124779	2024-09-08	2030-03-04	First Class	124779	United States	Arlington	Texas	76017	Other
18	4183	US-2023-160304	2023-01-02	2028-06-29	Standard Class	160304	United States	Gaithersburg	Maryland	20877	Other

Source: Clean Dataset

DATASET

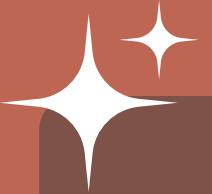
ROOT CAUSE ANALYSIS

How to increase sales turnover of chocolate candy in Canada by 20% in 1 year





DATA CLEANING



We use google sheet to clean the data

Remove duplicates based off Order_ID, leaves 1645 that are considered duplicates.

Drop off unused column

Finding out outliers with using IQR. 217 Rows detected as outliers.

Correcting ship_date column that are way too unrealistic to be the ship date

That leaves out about 8333 rows

DATA VISUALIZATION & ANALYSIS



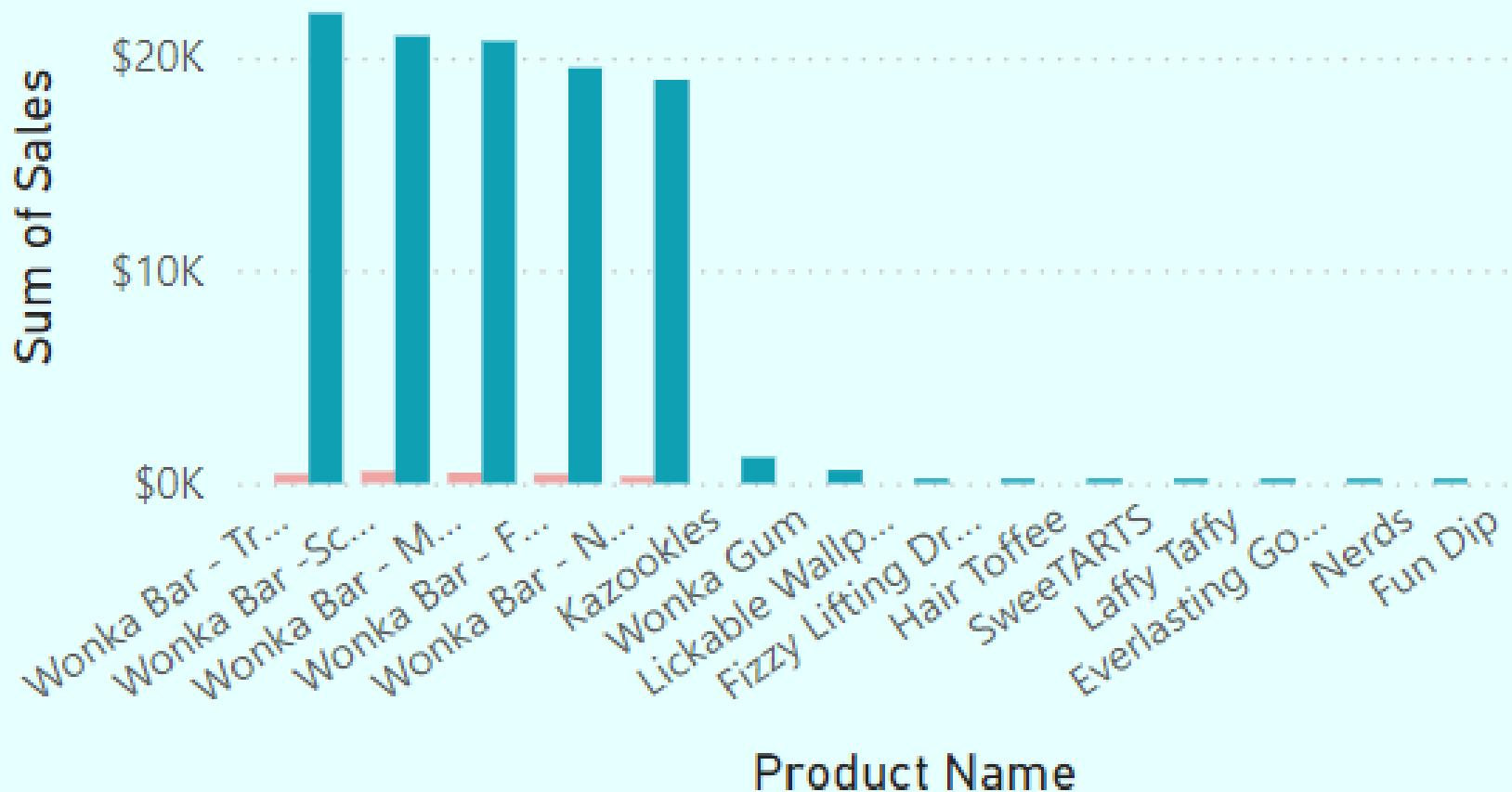
Source: Dashboard



COMPARISON OF CANDY DISTRIBUTION IN US & CANADA

Sum of Sales by Product Name and Country/Region

Country/Region ● Canada ● United States



In the US, the Product that are available is 15, meanwhile in Canada there is only 5 Product.

What we can do is to Distribute a Product in US with a High Sales to Canada like Kazookles and Wonka Gum.



INCREASE IN EXISTING CUSTOMER TO SALES

Cohort Analysis							
Year	0	4	12	15	24	27	36
2021	100.00%		0.51%	0.10%	0.51%	0.10%	1.85%
2022	100.00%			0.20%			
2023	100.00%	0.08%	0.69%				
2024	100.00%						
January	100.00%						
February	100.00%						
March	100.00%						
April	100.00%						
May	100.00%						
June	100.00%						
July	100.00%						
August	100.00%						
September	100.00%						
October	100.00%						
November	100.00%						
December	100.00%						
Total	100.00%	0.02%	0.32%	0.02%	0.10%	0.02%	0.36%

- Cohort 2021: Experienced a significant decrease in retention at month 4 (0.51%) and continued to decline until reaching 1.85% at month 36.
- Cohort 2023: Experienced decreased retention at month 4 (0.08%) and month 12 (0.69%).
- Cohort 2024: Experienced decreased retention at month 4 (0%), which may indicate that the data for this year is incomplete or still in its early stages.

Research the causes of activity spikes in a particular month, Maintain retention of new cohorts with onboarding strategies, Overcome retention declines in old cohorts, Personalize the approach for each cohort.

SALES OVER TIME

Sum Of Sales And Gross Profit by Month



November and December had the highest sales of 2021-2024 because it was the year-end shopping season. September and March also had strong growth. February, April, and July saw little or no growth.

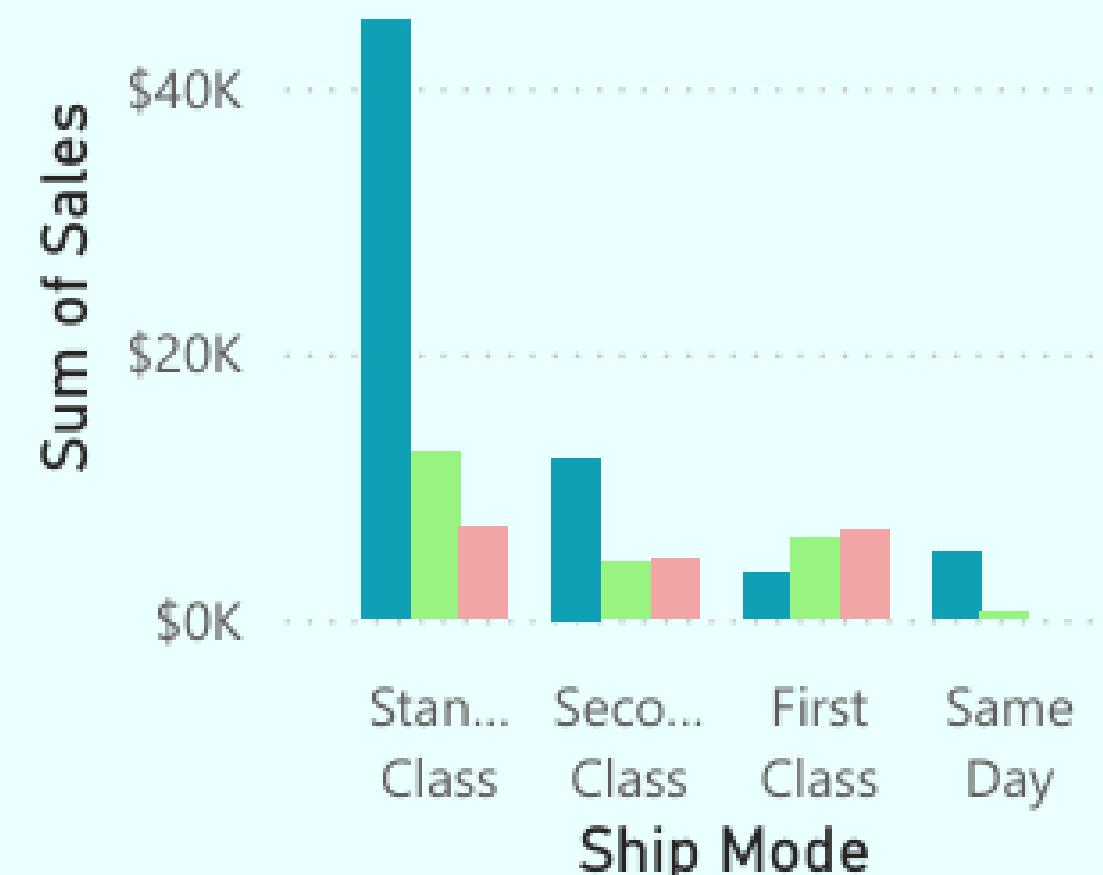
Marketing strategies should be focused on the best performing months for the months with declines, new ways such as discounting or bundling are needed.



SHIP MODE DURATION COMPARISON

Sum of Sales by Ship Mode and Duration Type

Durati... ● Fast ● Medium ● Slow



Standard Class is the most widely used delivery, but there are still many late deliveries especially in the first class delivery type.

What we can do is to Prepare, Evaluate, Optimize and offer a promo for other Shipping type that are less popular.



CANDY PRODUCTS WITH THE HIGHEST SALES

Sum of Sales by Product Name



Products that are more popular in Canada such as Wonka Bar - Scrumdiddlyumptious have the highest sales so it can be seen that these products have a higher appeal than other products.

Therefore, discounts can be applied to products with high interest in orders to increase sales.



CONCLUSION

1

The variety of products sold in Canada are still limited compared to the United States.

2

Difficult to Retain New Customers

3

November and December had the highest sales of 2021–2024.

4

Standard Class is the most used shipping mode.

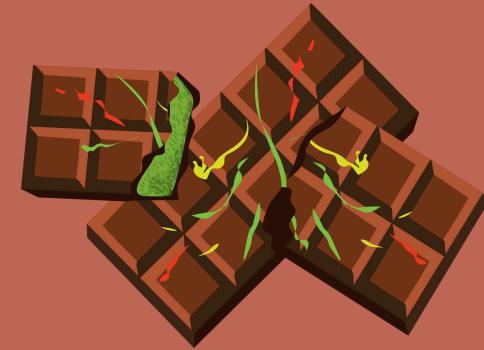
5

Wonka Bar – Scrumdidlyumptious has the highest sales in Canada, indicating greater appeal compared to other products.





RECOMMENDATIONS



Adding New Variants such as Wonka Gum and Kazookless



Increase Program Loyalty



Do Promo on Trend in Certain Months



Evaluate, and Optimize the Shipping.



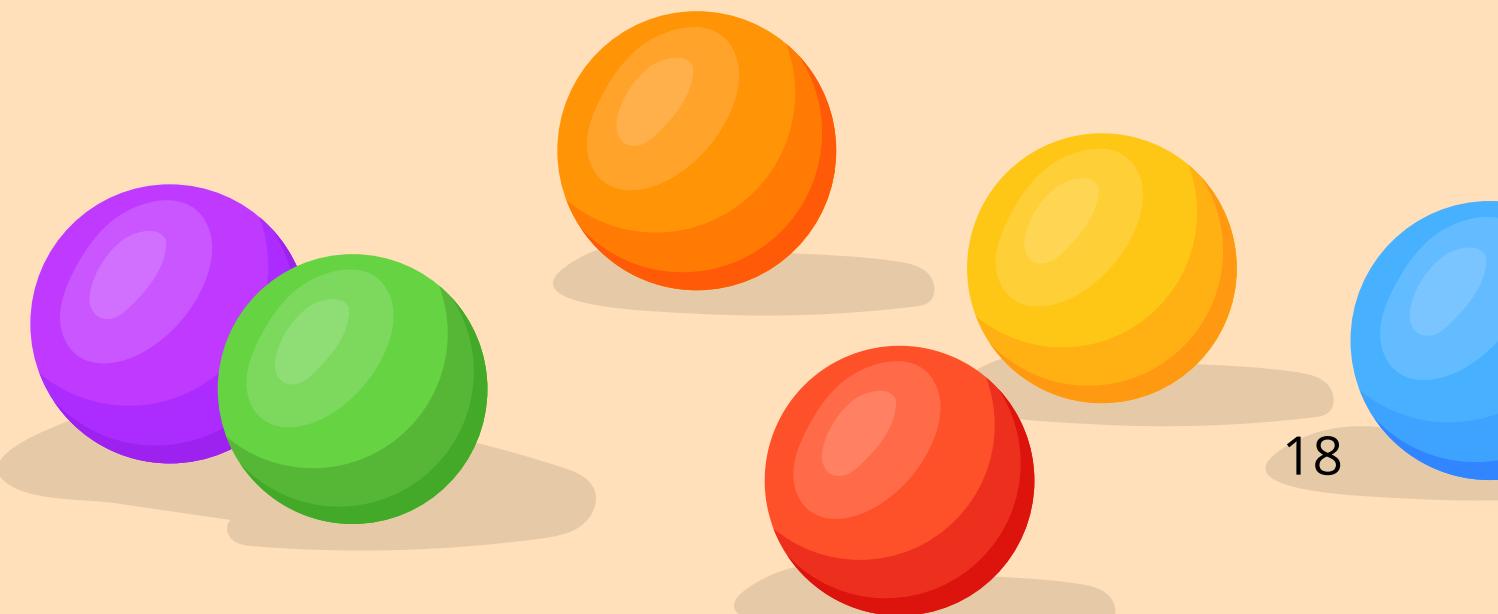
Give Discounts on Products





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**THANKS
FOR YOUR ATTENTION**



APPENDIX

Documentation

Cleaned Dataset

Dasboard

