

# Analyzing Sales and Profits

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# Introduction

This project involves analyzing a sales dataset with two main parts. The first part includes details about each sale, such as the Sales Person, Geography, Product, Amount, and Units sold. The second part shows the Cost per Unit for each product. By combining these datasets, we can better understand sales performance, profitability, and trends by location.



# Data Overview

**Table 1**

Sales Person	Geography	Product	Amount	Units	Cost per Unit	Cost	Added at 7 step
Ram Mahesh	USA	Peanut Butter Cubes	\$8,869	432	\$12.37	\$5,343.84	
Husein Augar	Australia	Mint Chip Choco	\$2,646	120	\$8.79	\$1,054.80	
Barr Faughny	India	Milk Bars	\$252	54	\$9.33	\$503.82	
Gigi Bohling	India	Orange Choco	\$15,610	339	\$10.62	\$3,600.18	
Barr Faughny	UK	Orange Choco	\$9,443	162	\$10.62	\$1,720.44	
Carla Molina	USA	Raspberry Choco	\$2,114	186	\$11.73	\$2,181.78	
Carla Molina	Canada	Milk Bars	\$10,311	231	\$9.33	\$2,155.23	
Gunar Cockshoot	UK	Mint Chip Choco	\$21	168	\$8.79	\$1,476.72	
Oby Sorrel	USA	Orange Choco	\$1,974	195	\$10.62	\$2,070.90	
Curtice Advani	Australia	Organic Choco Syrup	\$1,134	282	\$16.73	\$4,717.86	
Curtice Advani	New Zealand	Mint Chip Choco	\$1,904	405	\$8.79	\$3,559.95	
Ram Mahesh	India	Organic Choco Syrup	\$2,289	135	\$16.73	\$2,258.55	
Gigi Bohling	India	Organic Choco Syrup	\$6,986	21	\$16.73	\$351.33	
Curtice Advani	India	Raspberry Choco	\$1,442	15	\$11.73	\$175.95	
Gunar Cockshoot	Canada	Mint Chip Choco	\$9,198	36	\$8.79	\$316.44	
Gigi Bohling	Canada	Mint Chip Choco	\$16,184	39	\$8.79	\$342.81	
Carla Molina	USA	Milk Bars	\$4,760	69	\$9.33	\$643.77	
Curtice Advani	India	Organic Choco Syrup	\$4,242	207	\$16.73	\$3,463.11	
Curtice Advani	Australia	Mint Chio Choco	\$938	6	\$8.79	\$52.74	

**Table 2**

Product	Cost per unit
Milk Bars	\$9.33
50% Dark Bites	\$11.70
Almond Choco	\$11.88
Raspberry Choco	\$11.73
Mint Chip Choco	\$8.79
Eclairs	\$3.11
Drinking Coco	\$6.47
99% Dark & Pure	\$7.64
Orange Choco	\$10.62
Spicy Special Slims	\$9.00
After Nines	\$9.77
Fruit & Nut Bars	\$6.49
85% Dark Bars	\$4.97
White Choc	\$13.15
Baker's Choco Chips	\$5.60
Organic Choco Syrup	\$16.73
Caramel Stuffed Bars	\$10.38
Manuka Honey Choco	\$7.16
70% Dark Bites	\$14.49

## Problem Statement

This project aims to analyze sales data to understand key trends and insights. We will examine overall statistics, explore data with cross-filtering, identify sales by country, determine the top products by revenue per unit, spot anomalies, find the best sales persons by country, calculate profits by product, create a dynamic sales report by country, and identify the products for discontinuation.



# 1. Quick statistics

	Amount	Units
Average	4136.23	152.2
Median	3437	124.5
Max	16184	525
Min	0	0
Range	16184	525
First Q	1652	54
Third Q	6245.75	223.5

Distinct count of products

22



## 2.Exploratory Data Analysis (EDA) with CF

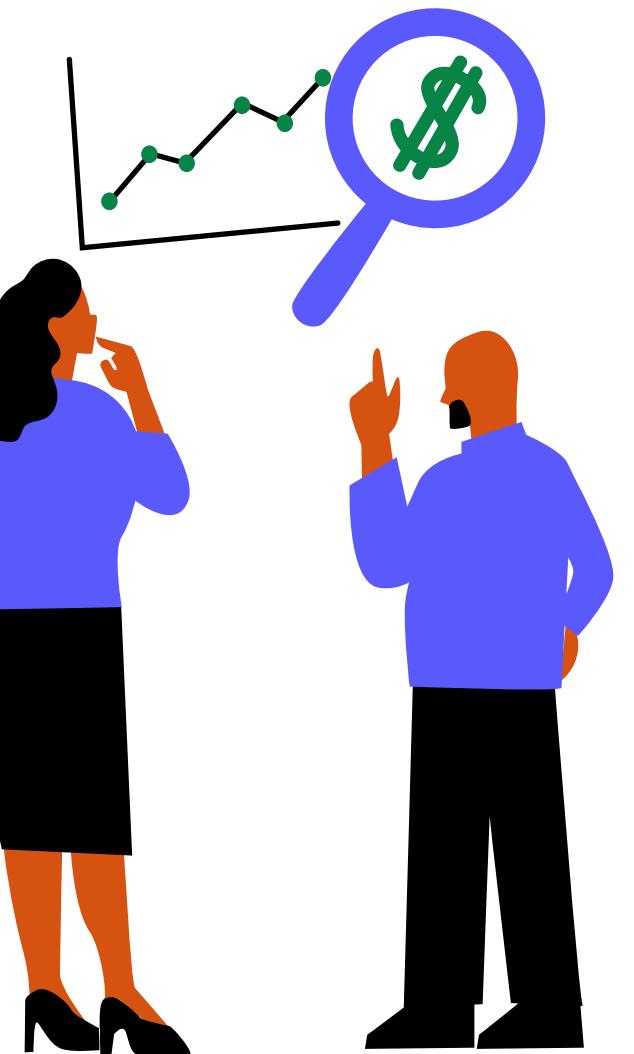
Sales Person	Geography	Product	Amount	Units
Gigi Bohling	Canada	Mint Chip Choco	\$16,184	39
Gigi Bohling	India	Orange Choco	\$15,610	339
Husein Augar	India	Caramel Stuffed Bar	\$14,329	150
Gigi Bohling	USA	Raspberry Choco	\$13,391	201
Oby Sorrel	UK	Peanut Butter Cubes	\$12,950	30
Ram Mahesh	USA	Choco Coated Almon	\$12,348	234
Barr Faughny	New Zealand	Drinking Coco	\$11,571	138
Husein Augar	Canada	Organic Choco Syrup	\$11,522	204
Barr Faughny	Canada	Mint Chip Choco	\$11,417	21
Carla Molina	Canada	Milk Bars	\$10,311	231
Carla Molina	Canada	Choco Coated Almon	\$10,304	84
Ches Bonnell	Australia	70% Dark Bites	\$10,129	312
Curtice Advani	Canada	Almond Choco	\$10,073	120
Barr Faughny	New Zealand	Eclairs	\$9,926	201
Ches Bonnell	New Zealand	After Nines	\$9,835	207
Ram Mahesh	Canada	Peanut Butter Cubes	\$9,772	90
Brien Boise	New Zealand	Raspberry Choco	\$9,709	30
Brien Boise	UK	Drinking Coco	\$9,660	27
Carla Molina	Canada	Drinking Coco	\$9,632	288



### 3 . Sales by country

Country	Sum of Amount	Sum of Units
India	\$2,52,469	8,760
Canada	\$2,37,944	7,302
New Zealand	\$2,18,813	7,431
USA	\$1,89,434	10,158
UK	\$1,73,530	5,745
Australia	\$1,68,679	6,264

Sales Person
Barr Faughny
Brien Boise
Carla Molina
Ches Bonnell
Curtice Advani
Gigi Bohling
Gunar Cockshoot
Husein Auear

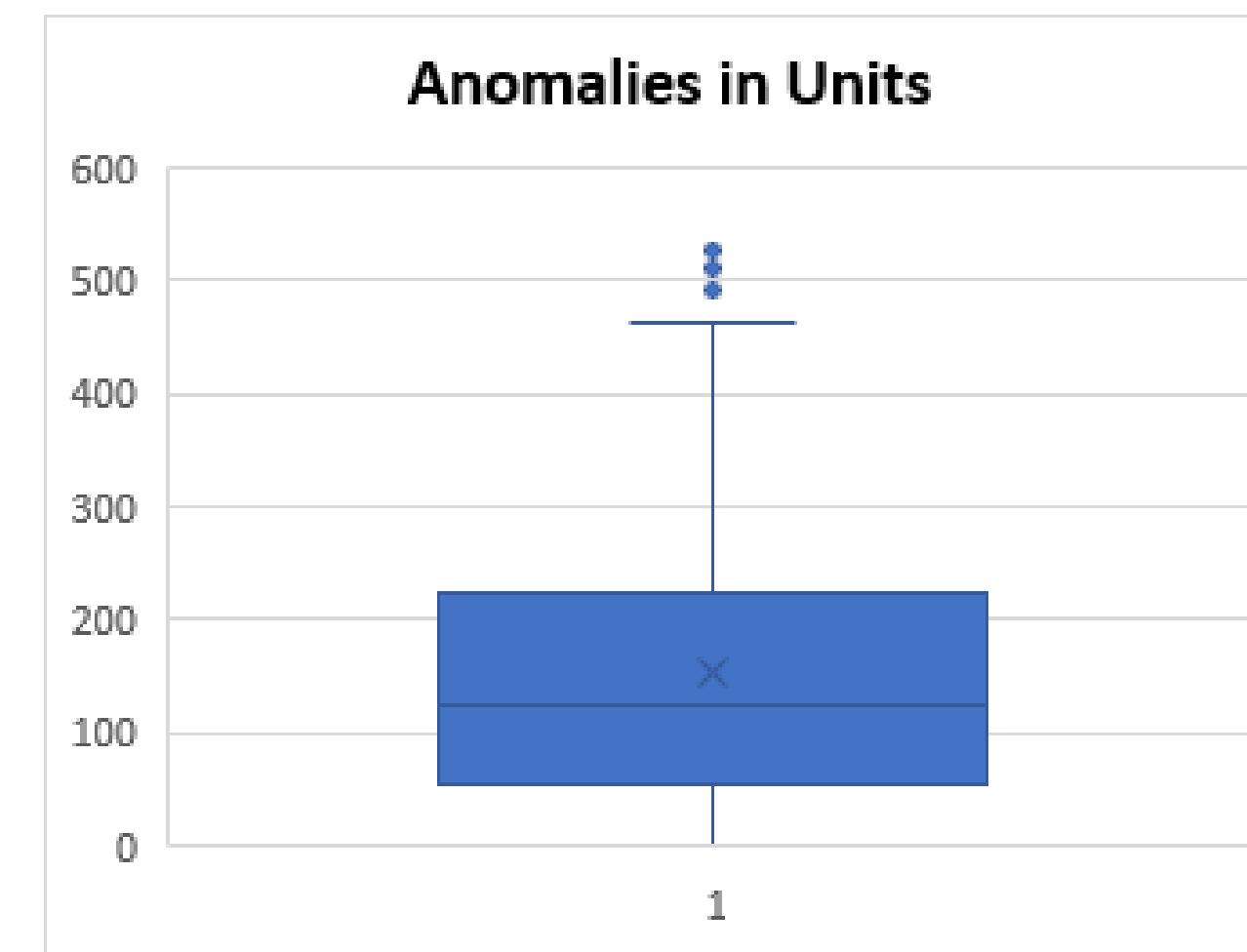
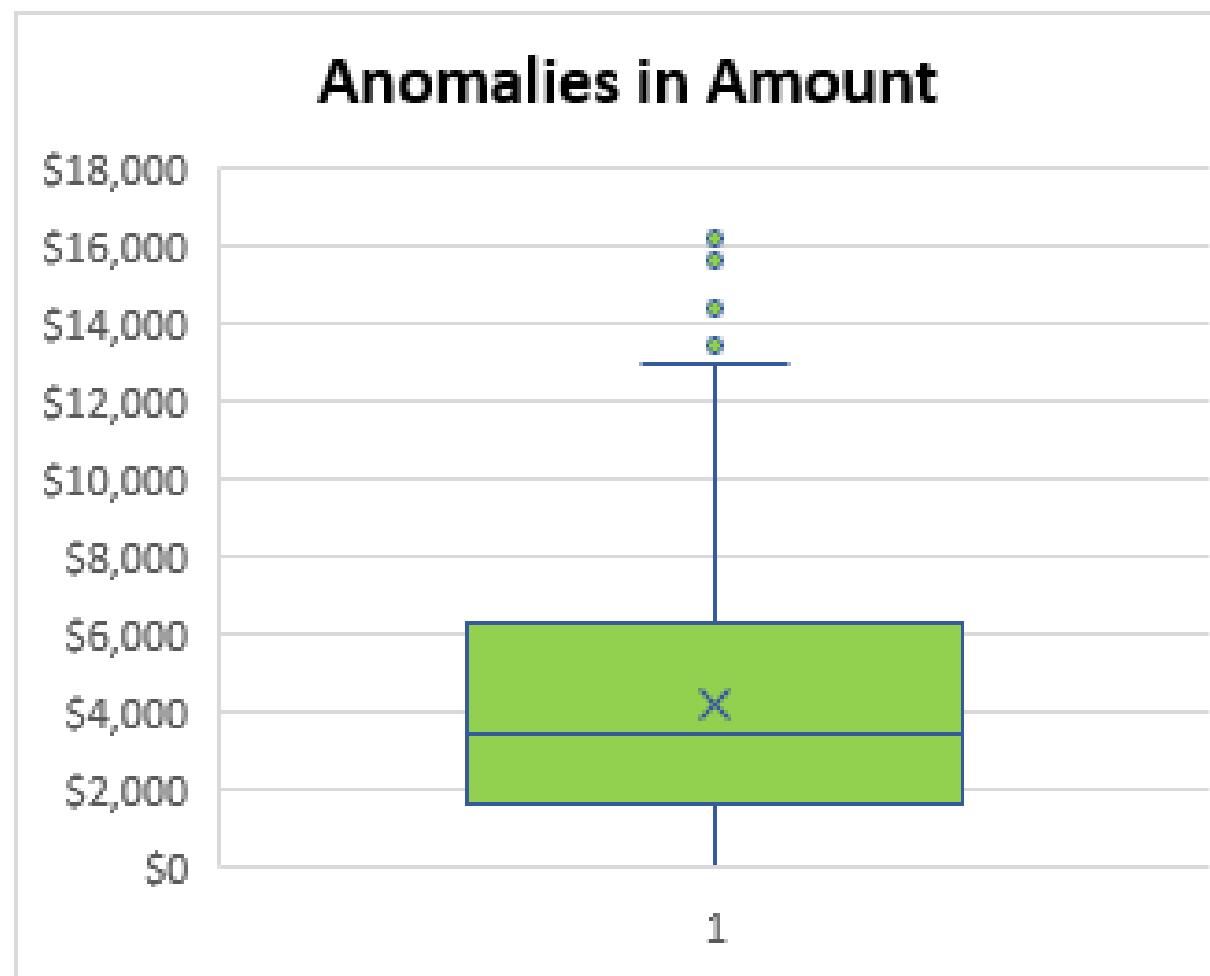


## 4. Top 5 products by \$ per unit

Product	Sales per unit
Raspberry Choco	\$44.99
Peanut Butter Cubes	\$37.30
85% Dark Bars	\$33.89
Baker's Choco Chips	\$32.81
After Nines	\$32.30

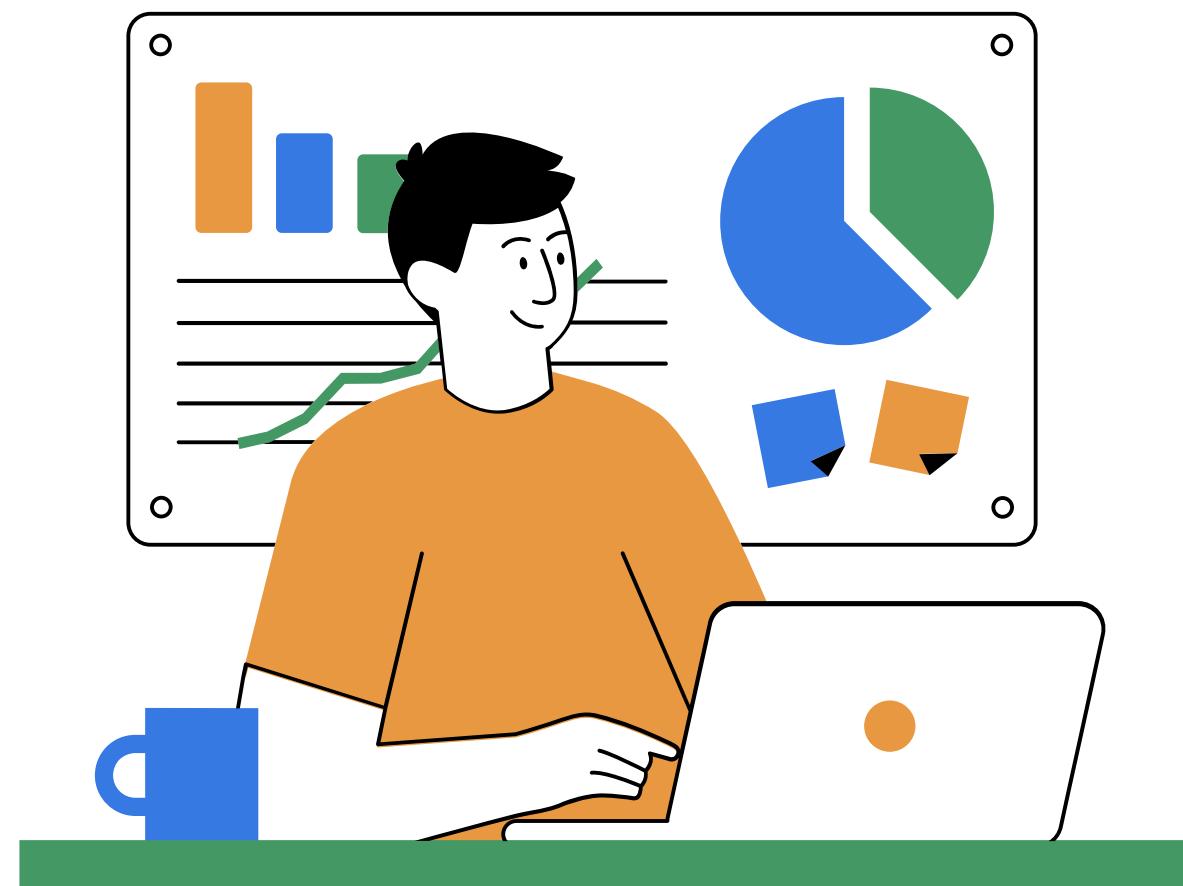


## 5. Are there any anomalies in the data?



# 6.Best Sales person by country

Row Labels	Sum of Amount
⊖ Australia	
Gigi Bohling	25221
⊖ Canada	
Gigi Bohling	39620
⊖ India	
Gigi Bohling	41559
⊖ New Zealand	
Ches Bonnell	43568
⊖ UK	
Barr Faughny	45752
⊖ USA	
Ram Mahesh	38325



# 7. Profits by product

Product	profit
50% Dark Bites	\$19,525.60
70% Dark Bites	\$25,899.02
85% Dark Bars	\$30,189.32
99% Dark & Pure	\$29,800.16
After Nines	\$46,234.96
Almond Choco	\$14,946.92
Baker's Choco Chips	\$58,277.80
Caramel Stuffed Bars	\$39,084.34
Choco Coated Almonds	\$52,063.35
Drinking Coco	\$40,814.56
Eclairs	\$56,471.59
Fruit & Nut Bars	\$44,884.12
Manuka Honey Choco	\$36,700.84
Milk Bars	\$29,721.27
Mint Chip Choco	\$43,177.34
Orange Choco	\$31,390.48
Organic Choco Syrup	\$19,572.14
Peanut Butter Cubes	\$46,226.02

Geography
Australia
Canada
India
New Zealand
UK
USA



# 8. Dynamic country-level Sales Report

pick a country Canada

## Quick summary

Number of transactions	50
Total	Average
Sales	\$2,37,944
Cost	\$68,260
Profit	\$1,69,684
Quantity	7,302
	146



## By Sales Person

	Amount	Units	Target successful or not
Ram Mahesh	\$23,016	663	✓
Husein Augar	\$25,669	564	✓
Barr Faughny	\$23,709	909	✓
Gigi Bohling	\$39,620	573	✓
Carla Molina	\$39,242	1,482	✓
Gunar Cockshoot	\$18,564	420	✓
Oby Sorrel	\$13,797	1,053	✓
Curtice Advani	\$27,377	513	✓
Brien Boise	\$5,019	150	✗
Ches Bonnell	\$21,931	975	✓

# 9. Which products to discontinued?

Product	Sum of Amount	Sum of Units	profit	profit%
Baker's Choco Chips	70273	2142	\$58,278	82.93%
Eclairs	63721	2331	\$56,472	88.62%
Choco Coated Almonds	71967	2301	\$52,063	72.34%
Raspberry Choco	68971	1533	\$50,989	73.93%
After Nines	66283	2052	\$46,235	69.75%
Peanut Butter Cubes	69160	1854	\$46,226	66.84%
Fruit & Nut Bars	56644	1812	\$44,884	79.24%
Mint Chip Choco	62111	2154	\$43,177	69.52%
Drinking Coco	52150	1752	\$40,815	78.26%
Caramel Stuffed Bars	72373	3207	\$39,084	54.00%
Manuka Honey Choco	58009	2976	\$36,701	63.27%
Orange Choco	54712	2196	\$31,390	57.37%
85% Dark Bars	35378	1044	\$30,189	85.33%
99% Dark & Pure	44744	1956	\$29,800	66.60%
Milk Bars	47271	1881	\$29,721	62.87%
White Choc	57372	2106	\$29,678	51.73%
Smooth Sliky Salty	39263	1683	\$29,518	75.18%
Spicy Special Slims	37772	1308	\$26,000	68.83%
70% Dark Bites	66500	2802	\$25,899	38.95%
Organic Choco Syrup	69461	2982	\$19,572	28.18%
50% Dark Bites	43183	2022	\$19,526	45.22%
Almond Choco	33551	1566	\$14,947	44.55%

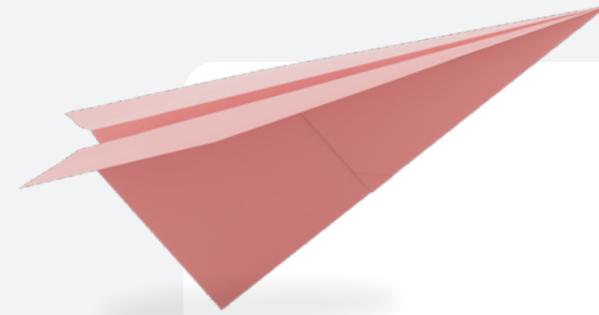
Geography	☰	✖
Australia	▲	
Canada		
India		
New Zealand		
UK		
USA	▼	





# Insights

- India has the highest sales and Australia has the lowest sales.
- Raspberry Choco product is the top selling product (\$44.99).
- Yes, the data contain multiple anomalies .
- Based on profit percentage, Organic Choco Syrup, 70% Dark Bites, 50% Dark Bites, and Almond Choco products should be discontinued
- Baker's Choco Chips give the highest profit (around \$58,278) and Almond Choco give the lowest profit (around \$ 15,000)
- Gigi Bohling is the top salesperson in three countries: Australia, Canada, and India. Among these, the highest sales are in India (41,559), followed by Canada (39,620), and then Australia (25,221).



# Thank you

[Project Github Link](#)

