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PROJECT DETAIL

Project title	Analysing Amazon Sales data
Technology	Business Intelligence
Domain name	E-commerce
Project Difficulties level	Advanced
Tools	Juptyer notebook , PowerBi, Ms Excel, Ms powerpoint

OBJECTIVE

Finding Sales & Profit Trend month wise , year wise , yearly month wise

PROBLEM STATEMENT

- Sales management has gained importance to meet increasing competition and the need for improved methods of distribution to reduce cost and to increase profits. Sales management today is the most important function in a commercial and business enterprise.

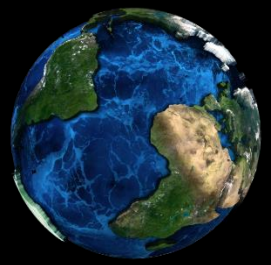
- Do ETL : Extract-Transform-Load some Amazon dataset and find for me Sales-trend -> month wise , year wise , yearly-month wise

- Find key metrics and factors and show the meaningful relationships between attributes.

ARCHITECTURE

amazon

Real World



Raw Data Collection → Importing Libraries in Jupyter Notebook → Load Dataset → Missing Value Imputations → Handling Outliers → Data Cleaning

Data Pre-Processing

Data Cleaning → Exploratory Data Analysis (EDA) → Modelling → Power BI Desktop → Insights → Deployment → Real World

Deployment → Rereporting

- ✓ **Low-Level Design Document**
- ✓ **High-Level Design Document**
- ✓ **Architecture Document**
- ✓ **Wireframe Document**
- ✓ **Detailed Project Report**

DATASET INFORMATION

This is a Sales related dataset that contains Information like Sales Amount, Cost Amount, Sales Prices, List Prices, Sales Margins, Sales Quantities, etc.

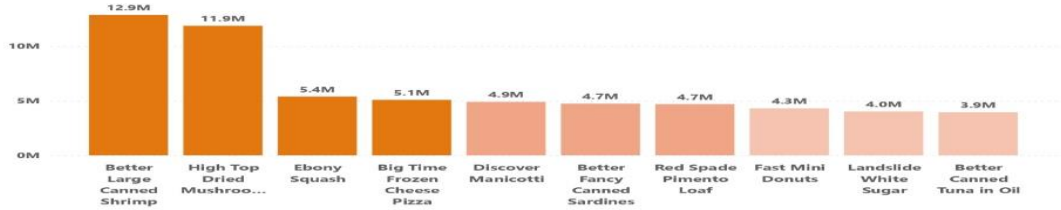
amazon

2017 | 2018 | 2019

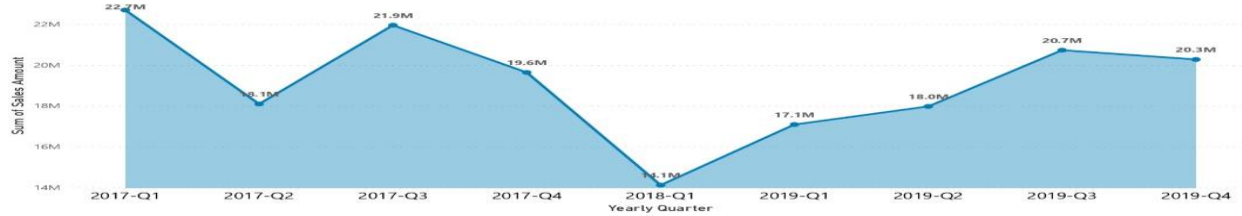
January | February | March | April | May | June | July | August | September | October | November | December

615	10.22K	172.53M	16.88K	72.05M
Items	Avg Order value	Revenue	Total Orders	Total Profit

Top Selling Items

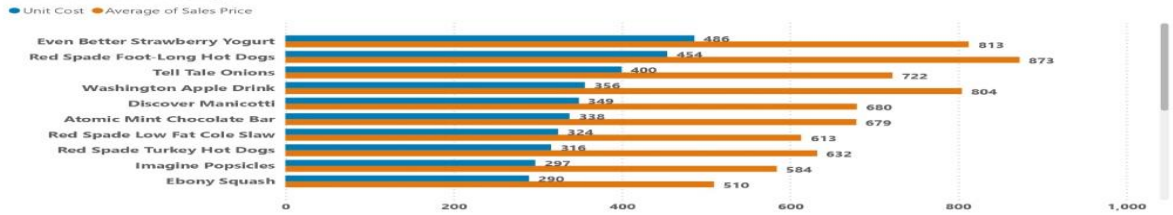


Total Sales

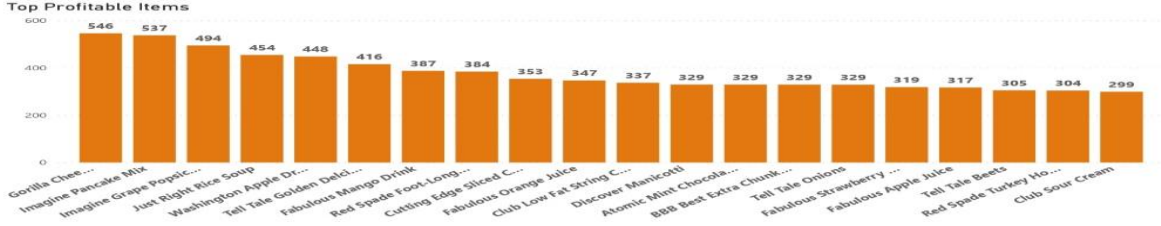


Total cost

Unit Cost vs Price (Avg)



Top Profitable Items

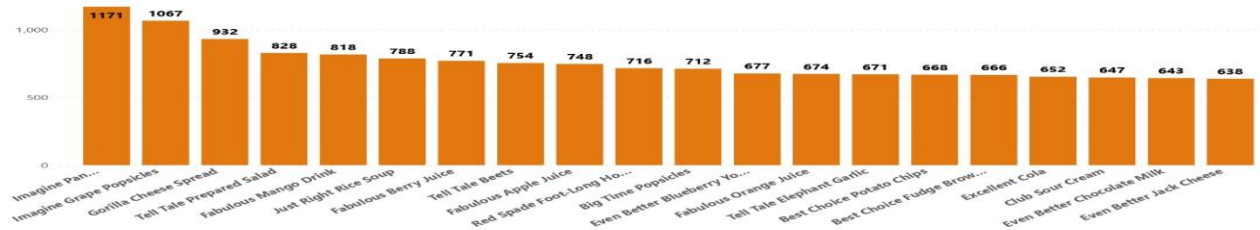


Total Profit

Impact of Discount on Profit

66.17	24.41	41.76
Margin Percentage before Disco...	Impact of discount	Margin Percentage after Discount

Top Items with High Discounts



Revenue details by Sales Rep

Sales Rep	Revenue	Revenue contribution %	Profit Margin %	Profit margin contribution %
141	24.73M	0.14	45.08	0.15
181	17.21M	0.10	34.75	0.08
149	11.25M	0.07	31.81	0.05
180	7.95M	0.05	46.46	0.05
108	6.92M	0.04	43.31	0.04
109	6.66M	0.04	24.95	0.02
Total	172.53M	1.00	41.76	1.00

Dashboard Insights

- Better Large Canned Shrimp had the highest Sales at $12870202.98.

- For cumulative of all years, Amazon made a Sales of $172.53M by completing an overall orders of 16.88K which in turn resulted in $72.05M profit.

- Comparing all 3 Years, 2017 was the year in which highest Sales & Profits were made, which was $82.36M and $35.02M, followed by year 2019 and then 2018 having least Sales and Profit.

- In 2017 Revenue was $82.36M and Profit was $35.02M which was 72.68% of Cost Amt. and it was 47.95% of Grand Total Profit. In 2018 Revenue was $14.12M and Profit was $6.59M which was 77.88% of Cost Amt. and it was 11.82% of Grand Total Profit. In 2019 Revenue was $76.05M and Profit was $30.44M which was 66.22% of Cost Amt. and it was 40.21% of Grand Total Profit.

- If we Compare Sales for 2017 and Sales for 2018 we found that on 24, 26 and 29 there was largest decline among Days. The relative contributions made by 24, 19, 6 changed the most

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- If we Compare Sales for 2018 and Sales for 2019 we found that on September, June and December there was largest increase among the months. The relative contributions made by Jan, Feb, Mar changed the most.

- Sales Reps 141, 181, 149 were the three top sales reps of all time and sales reps 150, 169, 116 were the bottom 3 sales reps of all time.

- Average order value per customer for year 2017 is 10363, 2018 is 9022 and for 2019 is 10172.

QUESTIONS AND ANSWERS

Q1) What's the source of data?

- The Dataset was taken from iNeuron's Provided Project Description Document.

Q2) What was the type of data?

- The data was a combination of numerical and Categorical values.

Q 3) What was the complete flow you followed in this Project?

- Understanding architecture of data analystics and as per architecture given above at slide 5, I have followed for this project

Q4) What techniques were you using for data?

- Removing unwanted attributes.
- Visualizing relation of independent variables with each other and output variables.
- Checking and changing distribution of continuous values.
- Removing outliers
- Cleaning data and imputing if null values are present.
- Transforming data to yield the desired result.

Thank you