SALES REPORT

Data Analytics:

Data Analytics is the process of examining data sets in order to find trends and draw conclusions about the information they contain. Data analytics is the science of data.

Data Analysis:

The collection, transformation and organization of data in order to draw conclusions, make predictions and drive informed decision making.

The six steps Data Analysis process are:

- Ask
- Prepare
- Process
- Analyze
- Share
- Act

Ask Phase:

In this phase, we first understand the dataset. The company is a Mechanical core company. We ask about what is the problem they are facing and then records about the company performance in the past.

Prepare Phase:

In this phase, we collect the required dataset that we are going to find the solution. We store it in excel or some databases or data warehouse. Storing and management of data is very important.

Process Phase:

In this phase, after collecting the required dataset, we must do Data cleaning/Data cleansing, which is very important. While doing data cleaning we can check for null values in the dataset and also we can remove duplicates and inaccuracies in data, so that we can get accurate results.

Analyze Phase:

In this phase, after doing Data cleaning we can start visualizing data to get meaningful insights. We can use different types of graphs or charts to represent the insights in a visual way.

Share Phase:

In this phase after Visualizing the data, then we can share the reports or dashboards that we are created to our stakeholders and we get some ideas about where to improve in our business.

Act Phase:

In this phase after getting the meaningful insights from the analyst, we can put that insights in a real time and that helps to improve the business.

Workflow for this task:

- **Data Cleaning process:**

Firstly, I started looking the dataset that what is this telling to convey. Then I looked what are the tables are there, and what are the columns in the dataset.

Then I thought that doing Data Cleaning so that it will give a accurate results at the end. So checked the dataset is there any null and duplicated values. I done Data Cleaning using excel.

Then in Item sales table, in columns Party Name some of the party names are in full capital and some of them are in full small case letters,

then some of them are having First letter capital and others are small. So, I thought of changing all things to upper case letters.

In excel, I used **UPPER** function to change all the Party Names to Upper case letters.

Same the case for Type and Item name columns in Item sales table. In that also some of them are fully upper case and some of them are in lower case. So I used **PROPER** function to have the First letter of the each and every word to be in capital letter.

Same I did for the Sale Report table also.

After doing these changes to the dataset. Data set looks clean and it is easy to see and analyse it in a proper way.

- **Data Visualization:**

After doing the data cleaning process, then I started doing Data Visualization to get meaningful insights from the data.

I used Power BI Desktop for data visualization.

First I used cards to find the total number of parties who are purchasing in the company. Then the total number of items that the parties bought and the total amount that is got from the sales.

Then used Slicers in Power BI to calculate what each party bought in each year(2021, 2022). After that created a slicer to get to know about sales in each and every month, how is the sales going.
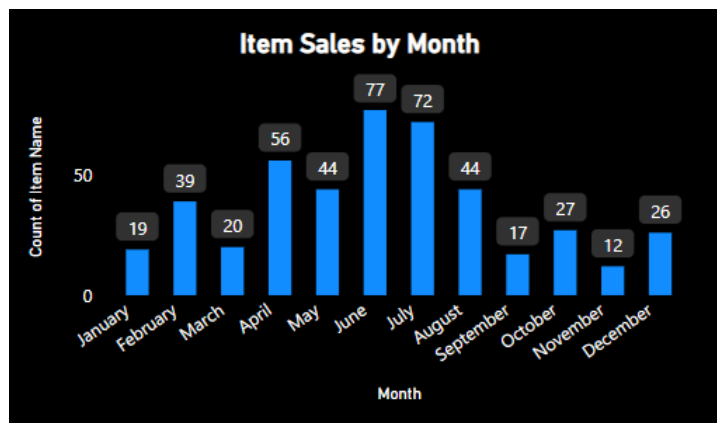
- **Insights:**
  o **Item sales by month**

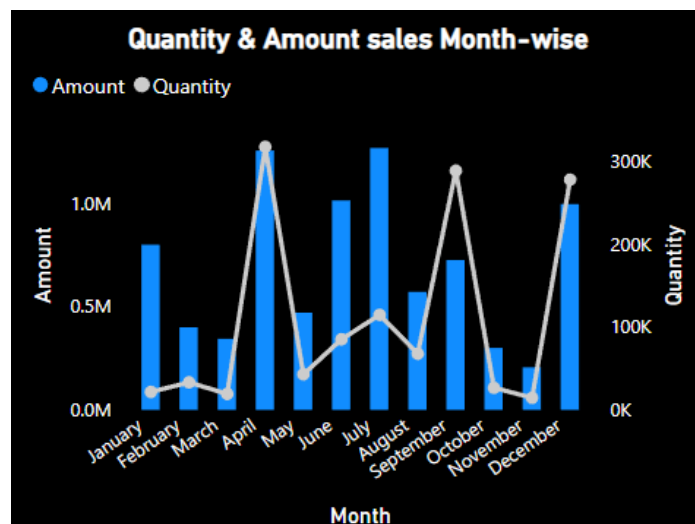 First I thought of taking the items sales per month.

  By this we can have the analysis of which month having the Highest items sold in the year 2021 and 2022.

  o **Amount and Quantity sold by month:**

  After taking the item sales by month. We can then calculate, how much quantity of that items sold per month.

  After that we can find how much amount we got each month.

With these insights, we can find the monthly Items purchased, Quantities sold and the amount generated by the sales.

o **Top parties in Quantity and amount:**

To take top buyers in every sales is very important. So that we can give some discounts for them.

Party Name	Item Name Count	Quantity
MED MED	337	3,75,848
STG	20	83,371
MEDEVIS	19	18,319
PEERLESS	7	7,57,502
NAVACON	6	28,475

o **Bottom parties in Quantity and amount:**

To take bottom buyers in every sales is also very important. So that we can ask them, what are their requirements and make some necessary changes.

Party Name	Item Name Count	Quantity
KAPPA	3	522
BH	2	6
CARPORANDUM	1	200
GLASS	1	1000
SACHIN	1	8
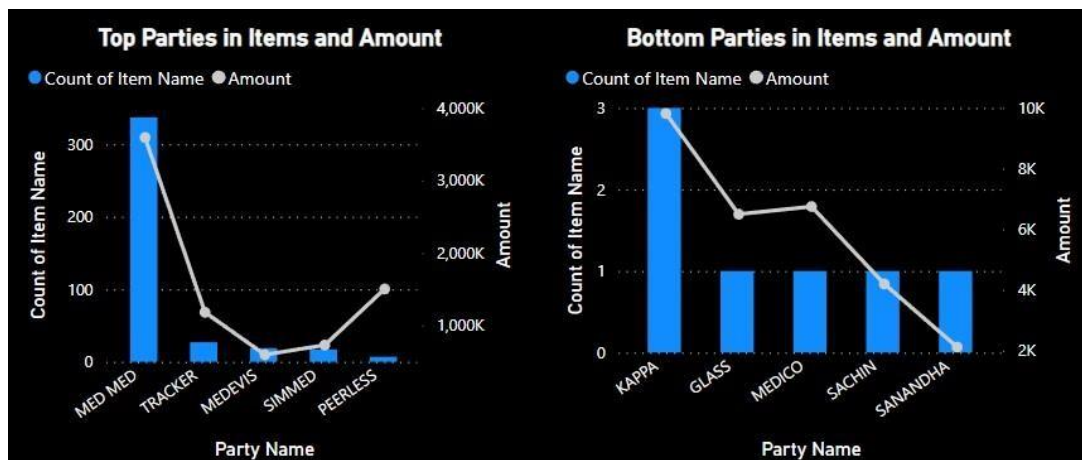
o **Top sold items:**

This is one of the important insights to know. Because we get to know about which items had made the company to get amount.

Item Name	Unit Price	Quantity
Device for Rapid Test	11.85	7,57,500
1500/1600 Plastic Tray	82.35	72,402
214 Mps Volume Displacer	48.24	46,696
1464 – ¼ Connector Hips	47.50	44,317
1467 Com priming port connector hips	19.32	28,365

o **Least sold items:**

This is also one of the important insights to know. Because we get to know about which items had got the least amount of sales. So that item can be reduced at the time of purchase.

Party Name	Unit Price	Quantity
5Mm rod and cutting	2.50	1
8x4 Mild sheet with cutting	1,900	1
Aluminium frame simmed	4,200	1
Locttee 638 50 MI	630	1
Trial Charge	1,000	1
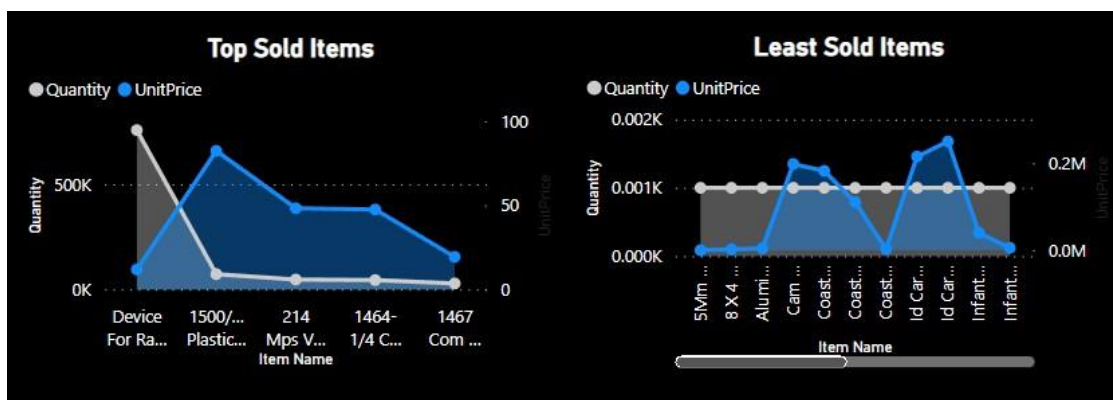
- **Comparing the Item sales of 2021 and 2022**

Party Name	2021	2022
Total No.of Parties	9	14
Total No.of Items	186	267
Total Amount	4.10M	4.24M
Top Sold Item	Device for Rapid Test	Device for Rapid Test
Least Sold Item	1201 Abt Base Holder	8 X 4 mild sheet with cutting
Top Monthly Sale	December(9,95,171)	April(8,93,002)
Least Monthly Sale	November(2,05,718)	August(2,66,523)
Top Party Buys	MED MED	MED MED
Least Party Buys	MEDIVIS	KAPPA
Total Quantities Purchased	7,54,312	5,57,603

Sales Report:

- **Comparison between the Sales of the years 2021 & 2022:**

Party Name	2021	2022
Total No.of Paid Bills	69	62
Total No.of Unpaid Bills	3	41
Total No.of Partial Bills	2	5
Top Buyer	MED MED	MED MED
Top Monthly Sale	December(11,11,831)	April(10,02,955)
Least Monthly Sale	November(2,34,130)	August(2,93,584)
Top Paid Bills in a month	July - 13	May - 17
Top Unpaid Bills in a month	December - 2	June - 13
Parties with more Paid Bills	MED MED - 40	MED MED - 29
Parties with more Unpaid Bills	SIMMED - 3	MED MED - 27
Paid Amount	43,37,659	27,61,141
Unpaid Amount	82,208	13,51,724
Partial Amount	1,80,428	6,96,196

• Monthly sales Comparison of the years 2021:

	2021							
	April	**June**	**July**	**August**	**September**	**October**	**November**	**December**
Paid Amount	4,14,018	5,45,204	7,90,848	3,55,307	8,09,168	2,73,699	1,06,572	10,42,839
Unpaid Amount	NA	NA	NA	NA	NA	NA	13,216	68,992
Partial Amount	NA	NA	NA	NA	NA	66,086	1,14,342	NA
No.of Parties Purchased	3	3	6	3	4	6	3	4
No.of Paid Bills	7	9	13	9	7	10	4	10
No.of Unpaid Bills	NA	NA	NA	NA	NA	NA	1	2
No.of Partial Bills	NA	NA	NA	NA	NA	1	1	NA
Top Buyer	MED MED(194.96K)	MED MED(422.67K)	MED MED(329.55K)	MED MED(172.72K)	PEERLESS(518K)	SIMMED(90.27K)	MED MED(83.57K)	PEERLESS(566.72K)
Party with more Paid Bills	MED MED - 5	MED MED - 7	MED MED – 4 , STG - 4	MED MED – 5	MED MED – 4	MED MED – 6	MED MED – 3	MED MED – 6
Party with more Unpaid Bills	NA	NA	NA	NA	NA	NA	SIMMED - 1	SIMMED - 2
Total Item Sold	21	32	32	19	17	27	12	26

• Monthly sales Comparison of the years 2021:

	2022							
	January	**February**	**March**	**April**	**May**	**June**	**July**	**August**
Paid Amount	7,21,768	3,02,420	1,16,342	8.90,649	5,32,729	1,81,433	15,797	NA
Unpaid Amount	NA	1,09,634	44,341	1,06,406	NA	4,09,032	3,88,724	2,93,584
Partial Amount	2,12,400	41,600	2,21,536	5,900	NA	NA	2,14,760	NA
No.of Parties Purchased	3	6	4	4	5	4	5	6
No.of Paid Bills	8	12	6	11	17	6	2	NA
No.of Unpaid Bills	NA	3	2	3	NA	13	9	11
No.of Partial Bills	1	1	1	1	NA	NA	1	NA
Top Buyer	Tracker wave(548.11K)	MED MED(187.05K)	MED MED(85K)	PEERLESS(560K)	MED MED(295.32K)	Tracker Wave(117.83K	Navacon(11.60K)	MED MED (186.13K) -Unpaid
Party with more Paid Bills	MED MED - 6	MED MED - 6	MED MED – 2 , STG - 2	MED MED – 4	MED MED – 11	Tracker Wave - 3	Sachin -1, Navacon -1	NA
Party with more Unpaid Bills	NA	Med Med, Track wave, Simmed	MED MED	MED MED - 3	NA	MED MED – 9	MED MED – 8	MED MED – 4
Total Item Sold	19	39	20	35	44	45	40	25

Key Insights:

- Top buyer in both the year is **MED MED.**

- Top sold item is **Device for Rapid Test.**

- Least sold item is **5Mm Rod and cutting.**

- Top party in item purchase is **MED MED** with **337 items.**

- Least item purchased parties are **, Glass, Medico, Sachin, Sanandha** with **1 item.**

- Top items sold in a month is **77** in **June.**

- Least items sold in a month is **12** in **November.**

- Total amount of sales in **2021** is **43,37,659.**

- Total amount of sales in **2022** is **27,61,141.**

Conclusion:

As we see that, the sales when compared to 2021, 2022 is reduced with 15,76,518. The quantity of items purchased also decreased in 2022 when compared to 2021. Unit price of each items in 2022 is higher when compared to 2021.

So, that the company can give some more discounts to the parties that are buying and some coupons, so that the sales can be improved.

Analyzing the Past: Data Analyst

Analyzing the Present: Business Intelligence

Predicting the future: Data Scientist