ONLINE STORE SALES DATA ANALYSIS

Excel Data Analytics project

Annual Sales Report

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KEY SKILLS PRACTISED:

- Data Cleaning, Feature Engineering, Exploratory Data Analysis, Pivot Table, Pivot Charts, Data Visualisation, Dashboard, Chart Customization

- Data Analysis

- Business Insights

PROJECT PURPOSE:

- Dharam Vijay Store's stakeholder wants to create an annual sales report for 2022. So that, Dharam Vijay can understand their customers and grow more sales in 2023.

ABOUT PROJECT:

- This project is about Dharam Vijay Online Store sales data analysis.

- The project contains some sample questions to be answered.

ABOUT DATA:

- The raw dataset contains 19 columns and 31048 rows of sales data from Dharam Vijay Store.

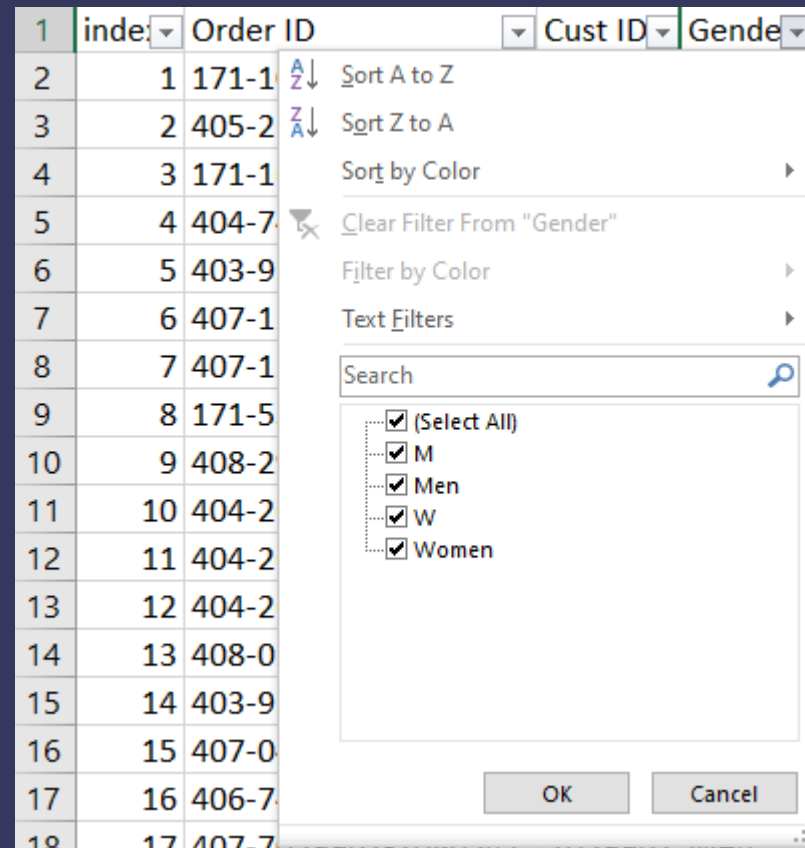|	index	Order ID	Cust ID	Gender	Age	Date	Status	Channel	SKU	Category	Size	Qty	currency	Amount	ship-city	ship-state	ship-postal-code	ship-country	B2B
2	1	171-1029312-3038738	1029312	Women	44	04/12/2022	Delivered	Myntra	JNE1233-BLUE-KR-031-XXL	kurta	XXL	1	INR	376	MOHALI	PUNJAB	140301	IN	FALSE
3	2	405-2183842-2225946	2183842	Women	29	04/12/2022	Delivered	Ajio	SET414-KR-NP-L	Set	L	1	INR	1449	GURUGRAM	HARYANA	122002	IN	FALSE
4	3	171-1641533-8921966	1641533	Women	67	04/12/2022	Delivered	Myntra	SET261-KR-PP-S	Set	S	1	INR	453	KOLKATA	WEST BENGAL	700029	IN	FALSE
5	4	404-7490807-6300351	7490807	Women	20	04/12/2022	Delivered	Amazon	SET110-KR-PP-M	Set	M	1	INR	729	THANJAVUR	TAMIL NADU	613007	IN	FALSE
6	5	403-9293516-4577154	9293516	Women	62	04/12/2022	Delivered	Myntra	JNE2294-KR-A-XXL	kurta	XXL	1	INR	544	GURUGRAM	HARYANA	122001	IN	FALSE
7	6	407-1298130-0368305	1298130	Men	49	04/12/2022	Delivered	Flipkart	JNE3797-KR-XXL	Western Dress	XXL	One	INR	735	SANGLI MIRAJ KUPWAD	MAHARASHTRA	416436	IN	FALSE
8	7	407-1298130-0368305	1298130	W	23	04/12/2022	Delivered	Meesho	JNE3801-KR-XXL	kurta	XXL	One	INR	735	BENGALURU	KARNATAKA	560029	IN	FALSE
9	8	171-5561216-3398711	5561216	W	70	04/12/2022	Delivered	Others	JNE3405-KR-M	kurta	M	One	INR	435	GURUGRAM	HARYANA	122001	IN	FALSE
10	9	408-2935263-2935550	2935263	W	75	04/12/2022	Delivered	Amazon	JNE3474-KR-E-XL	kurta	XL	One	INR	385	BENGALURU	KARNATAKA	562149	IN	FALSE
11	10	404-2648970-9042715	2648970	W	43	04/12/2022	Delivered	Myntra	JNE3466-KR-L	kurta	L	One	INR	771	VIJAYAWADA	ANDHRA PRADESH	520002	IN	FALSE
12	11	404-2648970-9042715	2648970	W	76	04/12/2022	Delivered	Amazon	JNE3795-KR-S	kurta	S	One	INR	517	THIRUVANANTHAPURAM	KERALA	695018	IN	FALSE
13	12	404-2648970-9042715	2648970	Women	45	04/12/2022	Delivered	Myntra	J0181-TP-M	Top	M	1	INR	399	ARAKONAM	TAMIL NADU	631003	IN	FALSE
14	13	408-0265357-4939534	265357	Women	18	04/12/2022	Delivered	Amazon	SET217-KR-PP-XL	Set	XL	1	INR	786	GUWAHATI	ASSAM	781017	IN	FALSE
15	14	403-9268874-7296313	9268874	Men	44	04/12/2022	Delivered	Myntra	SET185-KR-NP-M	Set	M	1	INR	911	BENGALURU	KARNATAKA	562125	IN	FALSE
16	15	407-0442660-2736366	442660	Women	52	04/12/2022	Delivered	Amazon	SET333-KR-DPT-M	Set	M	1	INR	967	HYDERABAD	TELANGANA	500098	IN	FALSE
17	16	406-7482261-1657136	7482261	Women	18	04/12/2022	Delivered	Nalli	J0124-TP-L	Top	L	1	INR	523	NEW DELHI	DELHI	110062	IN	FALSE
18	17	407-7039962-7080347	7039962	Men	30	04/12/2022	Delivered	Meesho	SET304-KR-DPT-XL	Set	XL	1	INR	1115	Bhubaneswar	ODISHA	751022	IN	FALSE
19	18	407-3422488-7373923	3422488	Women	48	04/12/2022	Delivered	Others	SET184-KR-PP-XS	Set	XS	1	INR	563	SIROHI	RAJASTHAN	307001	IN	FALSE
20	19	171-8974687-6745940	8974687	Men	24	04/12/2022	Delivered	Myntra	J0161-DR-XXL	Western Dress	XXL	1	INR	473	MUMBAI	MAHARASHTRA	400097	IN	FALSE
21	20	406-0244536-2177175	244536	Women	46	04/12/2022	Delivered	Amazon	SET233-KR-PP-M	Set	M	1	INR	545	AMRITSAR	PUNJAB	143001	IN	FALSE
22	21	404-4376789-3345166	4376789	Women	43	04/12/2022	Delivered	Nalli	J0231-SKD-XXXL	Set	3XL	1	INR	1164	LUCKNOW	UTTAR PRADESH	226024	IN	FALSE
23	22	408-1943310-9789160	1943310	Men	31	04/12/2022	Refunded	Myntra	J0339-DR-XXL	Western Dress	XXL	1	INR	743	NEW DELHI	DELHI	110087	IN	FALSE
24	23	403-0950590-5005155	950590	Men	30	04/12/2022	Delivered	Myntra	SET210-KR-PP-XXXL	Set	3XL	1	INR	575	MADURAI	TAMIL NADU	625014	IN	FALSE

APPROACH USED:

1. Data Wrangling:-

- Performed data cleaning on the given raw data,

- Removed inconsistencies,

- And looked out for duplicates and null values in each column.

APPROACH USED:

1. Data Wrangling:-

APPROACH USED:

2. Feature Engineering:-

- It helps to generate new columns with the help of existing ones.

- These new columns help to analyze data and find more details.

- In this project we created two new columns 'Age Group' and 'Month'.

APPROACH USED:

2. Feature Engineering:-

| Age Group	Date	Month
Adult	04/12/2022	Dec
Teenager	04/12/2022	Dec
Senior	04/12/2022	Dec
Teenager	04/12/2022	Dec
Senior	04/12/2022	Dec
Adult	04/12/2022	Dec
Teenager	04/12/2022	Dec

Chart Area

APPROACH USED:

3. Exploratory Data Analysis(EDA):-

- Exploratory Data Analysis is done to answer the business questions and aim of this project.
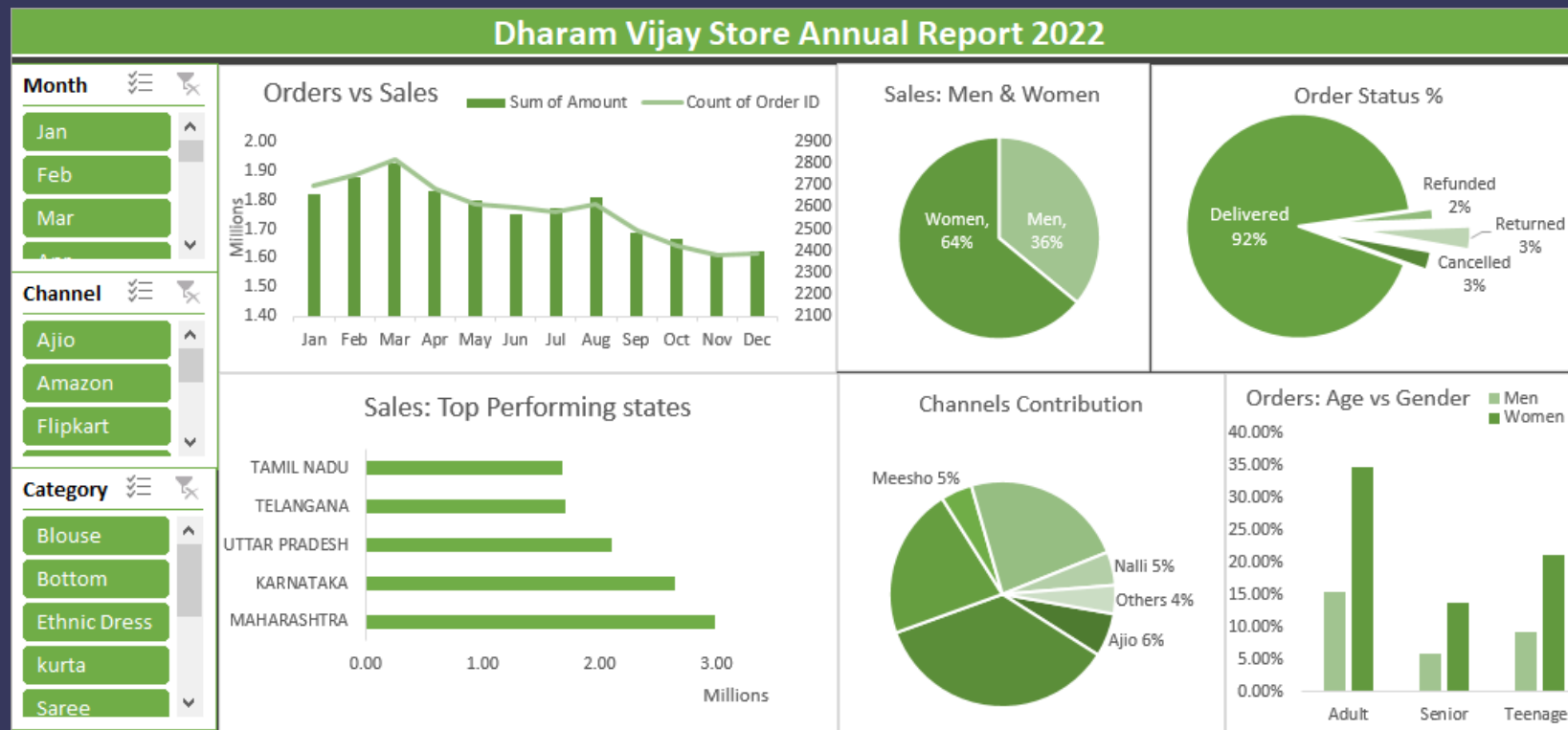
APPROACH USED:

3. Exploratory Data Analysis(EDA):-
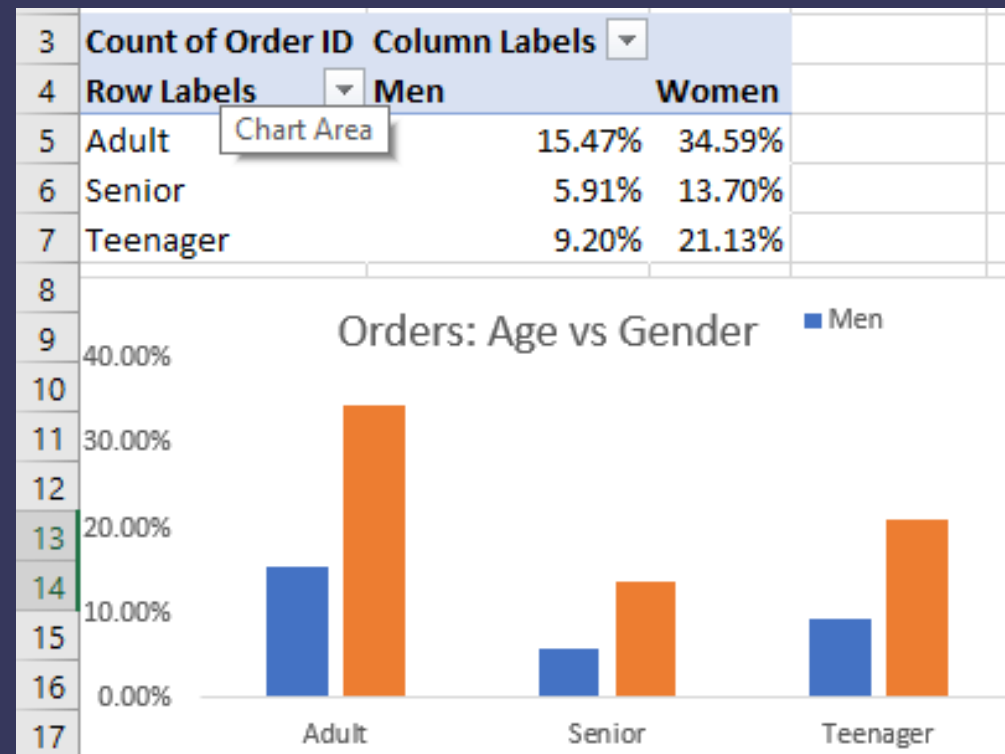
APPROACH USED:

4. Dashboard Report:-

- Finally designed a cutting edge dashboard showing insights and multiple sales trends across different cities.

APPROACH USED:

4. Dashboard Report:-

Dharam Vijay Store Annual Report 2022

Orders vs Sales — Sum of Amount, Count of Order ID

Sales: Men & Women — Women, 64%; Men, 36%

Order Status % — Delivered 92%, Refunded 2%, Returned 3%, Cancelled 3%

Sales: Top Performing states — TAMIL NADU, TELANGANA, UTTAR PRADESH, KARNATAKA, MAHARASHTRA

Channels Contribution — Meesho 5%, Nalli 5%, Others 4%, Ajio 6%

Orders: Age vs Gender — Men, Women; Adult, Senior, Teenager

Month: Jan, Feb, Mar
Channel: Ajio, Amazon, Flipkart
Category: Blouse, Bottom, Ethnic Dress, kurta, Saree

SAMPLE QUESTIONS:

1. Compare the sales and orders using single chart

Row Labels ▾	Sum of Amount	Count of Order ID
Jan	1820601	2702
Feb	1875932	2750
Mar	1928066	2819
Apr	1829263	2685
May	1797822	2617
Jun	1750966	2597
Jul	1772300	2579
Aug	1808505	2617
Sep	1688871	2490
Oct	1666662	2424
Nov	1615356	2383
Dec	1622033	2384

Orders vs Sales
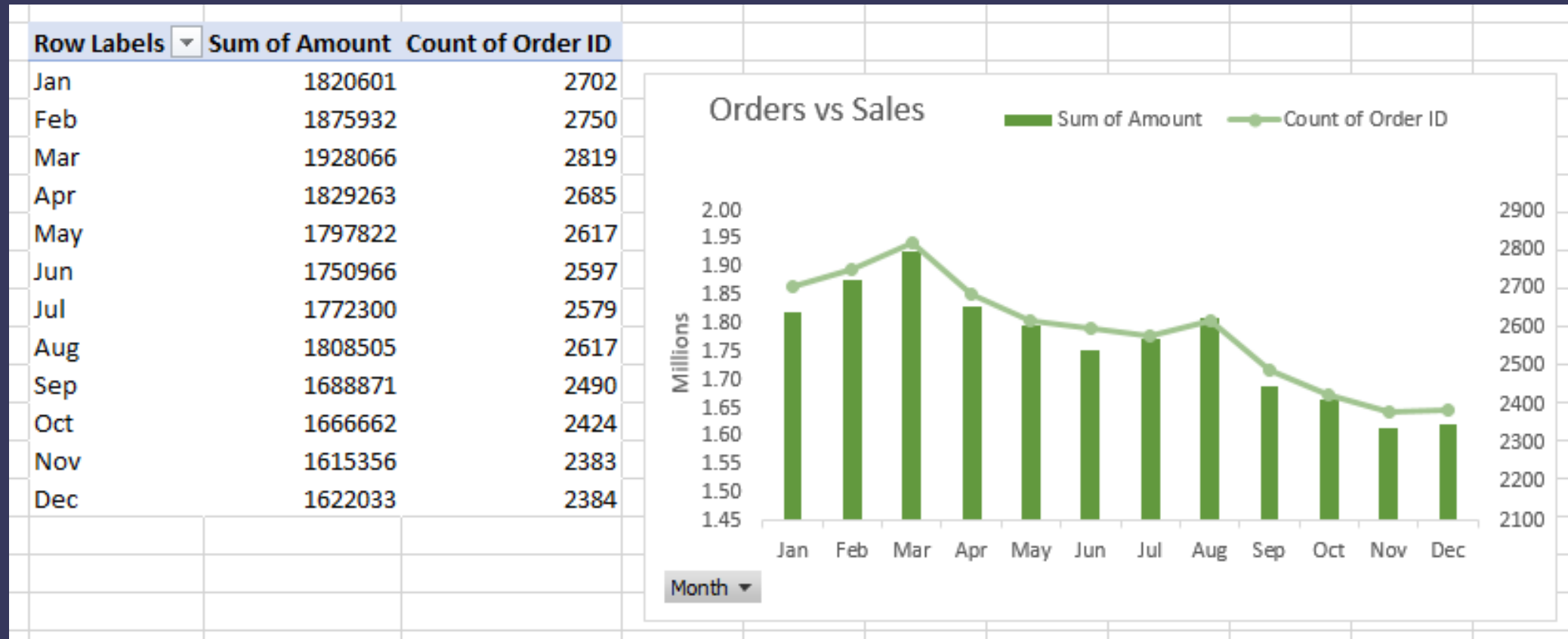
Online Store Sales Data Analysis

2. Which month got the highest sales and orders?

Row Labels	Sum of Amount	Count of Order ID
Jan	1820601	2702
Feb	1875932	2750
Mar	1928066	2819
Apr	1829263	2685
May	1797822	2617
Jun	1750966	2597
Jul	1772300	2579
Aug	1808505	2617
Sep	1688871	2490
Oct	1666662	2424
Nov	1615356	2383
Dec	1622033	2384

Orders vs Sales — Sum of Amount / Count of Order ID
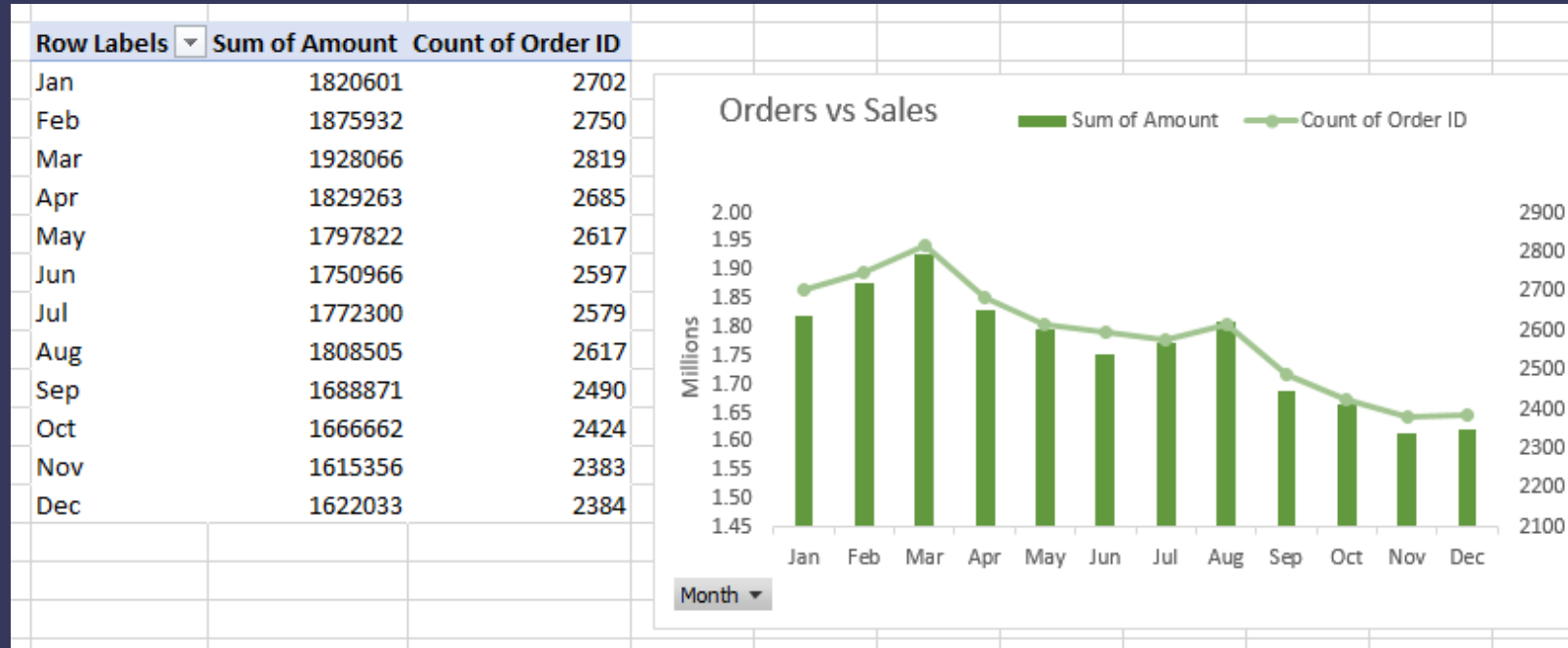
- We can see in table that in March, sales and number of orders are greater than other months.

- These greater numbers are clearly visible in the chart in the right hand side.

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SAMPLE QUESTIONS:

3. Who purchased more, men or women in 2022?

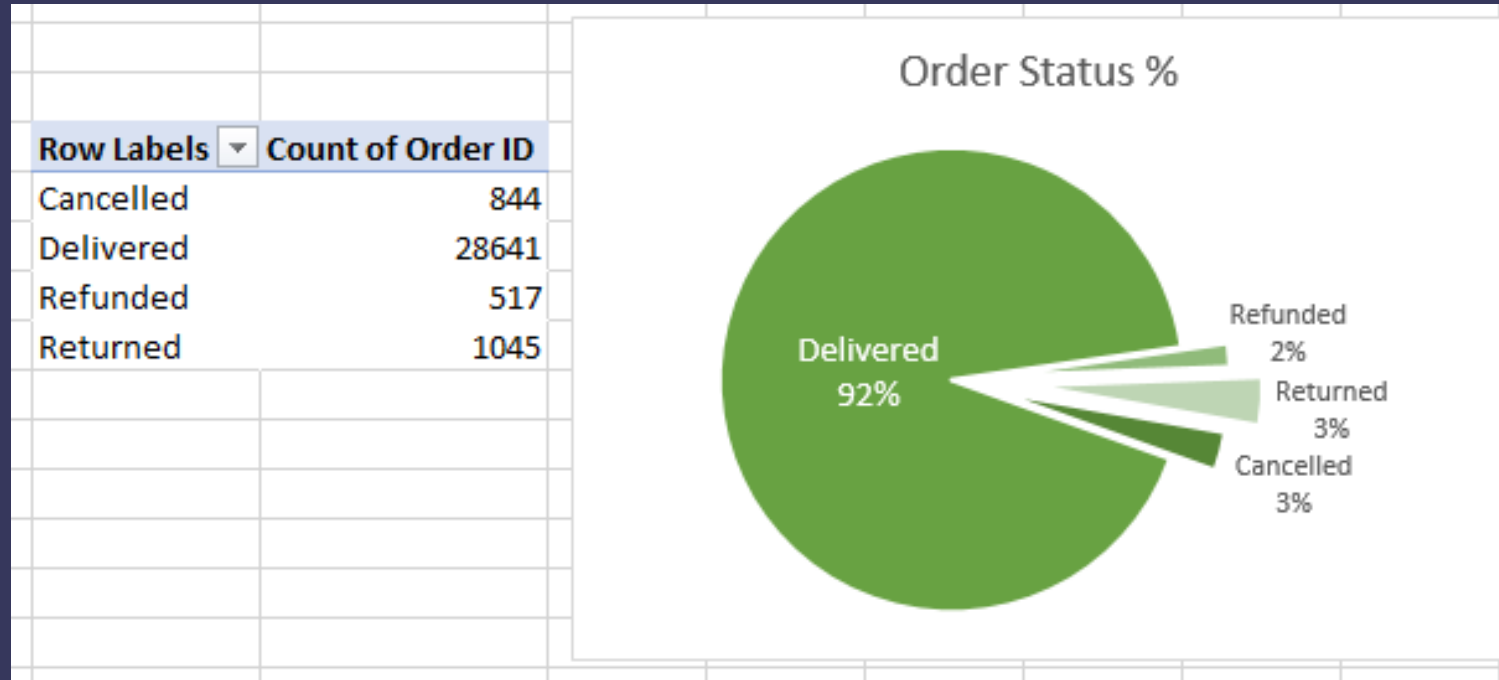| Row Labels ▼	Sum of Amount
Men	7613604
Women	13562773

Sales: Men & Women
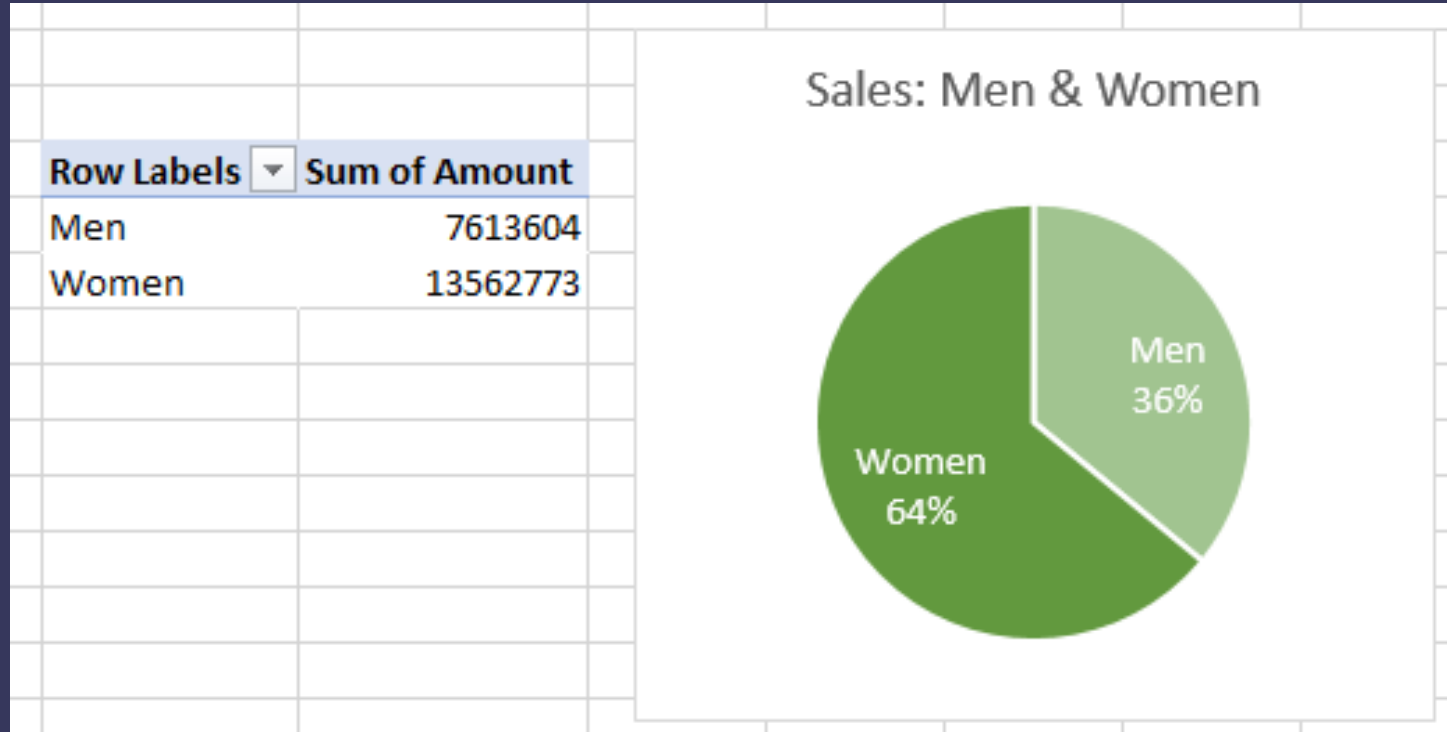
Men 36%

Women 64%

- Women(64%) are leading in sales than Men(36%)

SAMPLE QUESTIONS:

4. What are different order status in 2022?

Row Labels	Count of Order ID
Cancelled	844
Delivered	28641
Refunded	517
Returned	1045

Order Status %

Delivered 92%
Refunded 2%
Returned 3%
Cancelled 3%

- 92% orders are successfully delivered, while 3% orders are returned, 3% are cancelled and other 2% orders are refunded.

5. List top 10 states contributing to the sales.
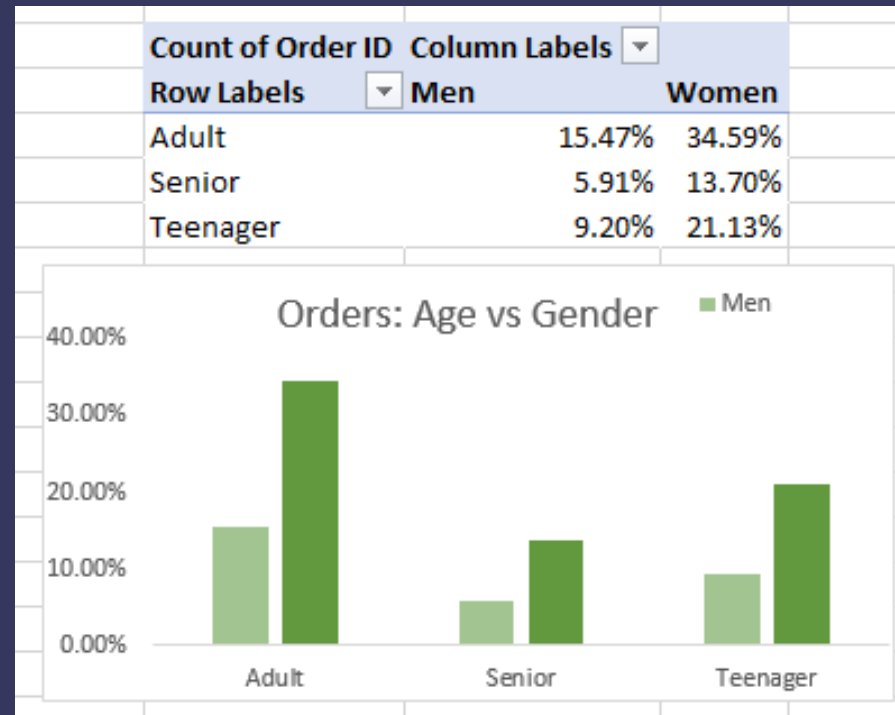

Row Labels	Sum of Amount
MAHARASHTRA	2990221
KARNATAKA	2646358
UTTAR PRADESH	2104659
TELANGANA	1712439
TAMIL NADU	1678877
DELHI	1266328
KERALA	1008940
WEST BENGAL	922444
ANDHRA PRADESH	918499
HARYANA	813320

Sales: Top Performing states

State	Value (Millions)
HARYANA	0.81332
ANDHRA PRADESH	0.918499
WEST BENGAL	0.922444
KERALA	1.00894
DELHI	1.266328
TAMIL NADU	1.678877
TELANGANA	1.712439
UTTAR PRADESH	2.104659
KARNATAKA	2.646358
MAHARASHTRA	2.990221

- Maharashtra is the leading state to the sales having revenue around 2.99 million.

SAMPLE QUESTIONS:

6. Relation between age and gender based on number of orders?

Count of Order ID	Column Labels	
Row Labels	Men	Women
Adult	15.47%	34.59%
Senior	5.91%	13.70%
Teenager	9.20%	21.13%

Orders: Age vs Gender

- Adult category is leading based on number of orders having more orders by women(34.59%) than men(15.4%)
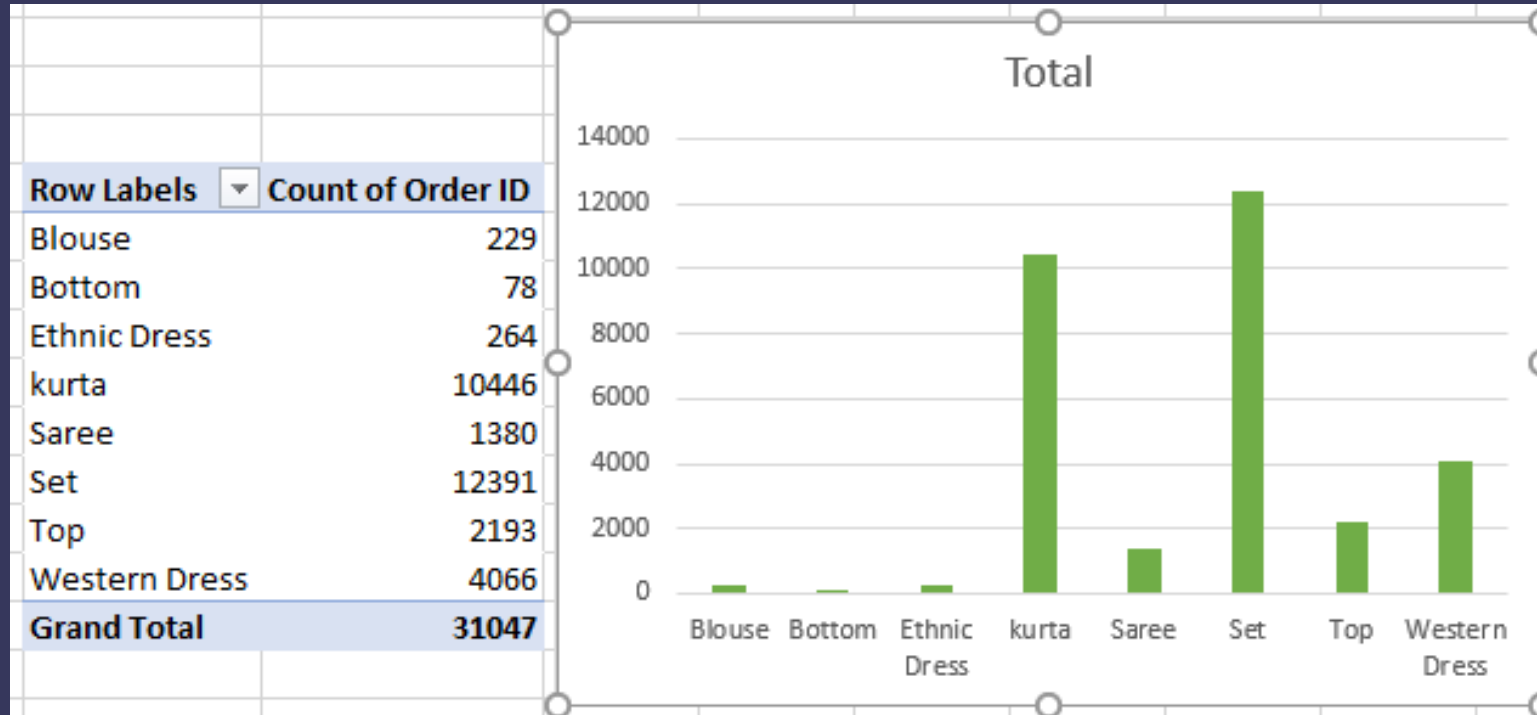
SAMPLE QUESTIONS:

7. Which channel is contributing to maximum sales?

Row Labels	Count of Order ID
Ajio	6.22%
Amazon	35.48%
Flipkart	21.59%
Meesho	4.50%
Myntra	23.36%
Nalli	4.78%
Others	4.06%

Channels Contribution
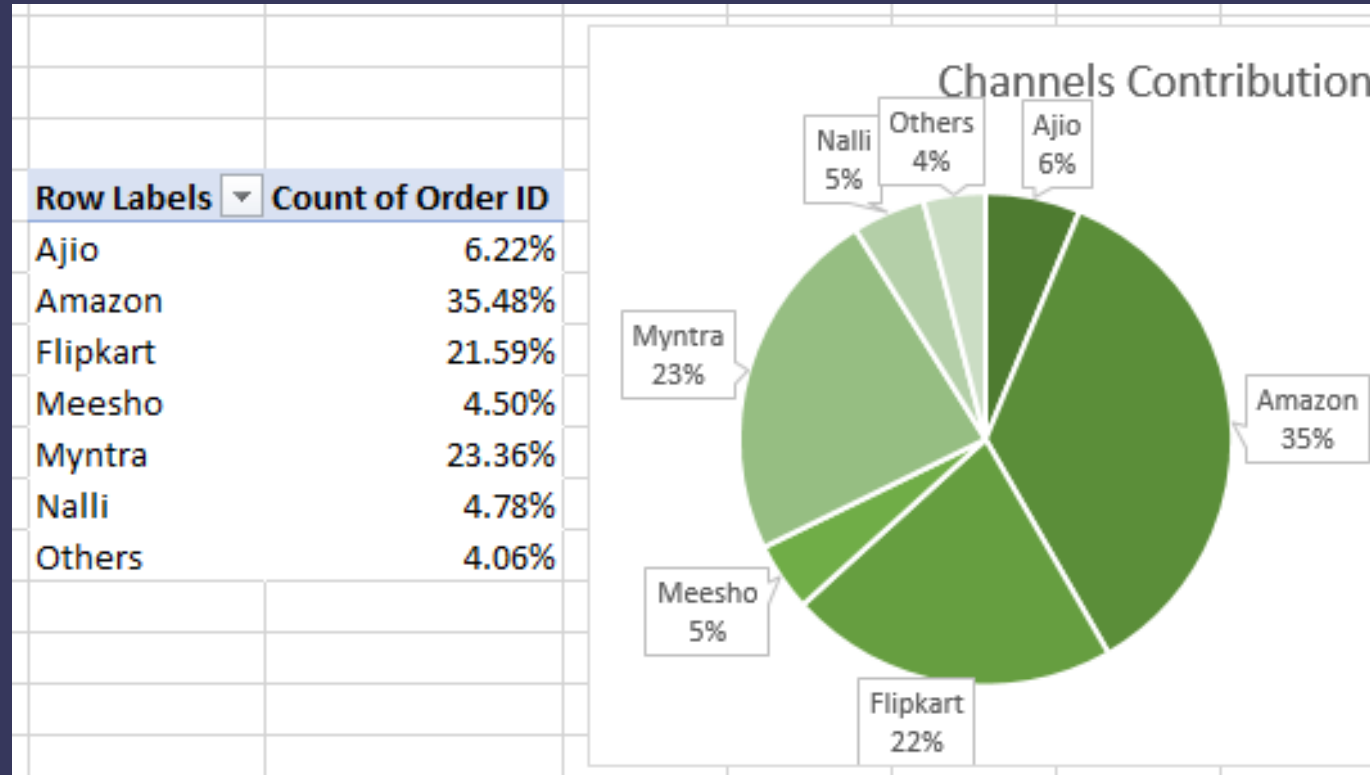
- Amazon(35%), Myntra(23%) and Flipkart(22%) are contributing to maximum sales.

SAMPLE QUESTIONS:

8. Which one is Highest selling category?

Row Labels	Count of Order ID
Blouse	229
Bottom	78
Ethnic Dress	264
kurta	10446
Saree	1380
Set	12391
Top	2193
Western Dress	4066
Grand Total	31047

- Set is the highest selling category having number of orders 12391

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PROJECT INSIGHTS:

- Women are more likely to buy as compared to Men (~64%)

- Maharashtra, Karnataka and Uttar Pradesh are the top 3 states (~35%)

- Adult age group (30-49 yrs) are most contributing (~50%)

- Amazon, Flipkart and Myntra channels are most contributing (~80%)

- Set is the highest selling category available

PROJECT FINDINGS:

- Target Women customers of Age group (30-49 yrs) living in Maharashtra, Karnataka and Uttar Pradesh by showing ads/offers/coupons available on Amazon, Flipkart and Myntra.

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