Order_ID	Product	Category	Quantity	Price_Per_Unit	Total_Amount	Customer_Region
1001	Wireless Mouse	Electronics	3	500	1500	North
1002	Yoga Mat	Fitness	NULL	800	NULL	South
1003	Coffee Maker	Kitchenware	1	3500	3500	East
1004	Bluetooth Speaker	Electronics	4	NULL	NULL	West
1005	Running Shoes	Footwear	2	2500	5000	North
1006	Smart Watch	Electronics	2	7000	14000	NULL
1007	Treadmill	Fitness	1	NULL	NULL	South
1008	Air Fryer	Kitchenware	3	4500	13500	East
1009	Vacuum Cleaner	Appliances	NULL	6000	NULL	North
1010	Dumbbells	Fitness	2	1500	3000	West
1011	Laptop Stand	Electronics	5	NULL	NULL	East
1012	Toaster	Kitchenware	1	2200	2200	South
1013	Air Purifier	Appliances	2	12000	24000	West
1014	Resistance Bands	Fitness	NULL	900	NULL	North
1015	Hair Dryer	Appliances	3	1800	5400	East
1016	Electric Kettle	Kitchenware	NULL	1500	NULL	South
1017	Office Chair	Furniture	1	8000	8000	West
1018	Adjustable Dumbbells	Fitness	2	5500	11000	North
1019	Soundbar	Electronics	1	20000	20000	East
1020	Yoga Block	Fitness	NULL	1200	NULL	South
1021	Rice Cooker	Kitchenware	2	4000	8000	West
1022	Monitor	Electronics	NULL	15000	NULL	North
1023	Iron	Appliances	1	2500	2500	East
1024	Resistance Bands	Fitness	3	NULL	NULL	South
1025	Smart TV	Electronics	1	40000	40000	West
1026	Water Bottle	Kitchenware	5	200	1000	North
1027	Sofa Set	Furniture	1	55000	55000	East
1028	Treadmill	Fitness	NULL	50000	NULL	South
1029	Microwave Oven	Appliances	2	12000	24000	West
1030	Laptop	Electronics	1	70000	70000	North

Question1- Data Cleaning and Transformation

Order_ID	Product	Category	Quantity	Price_Per_Unit	Total_Amount	Customer_Region
1001	Wireless Mouse	Electronics	3	500	1500	NORTH
1002	Yoga Mat	Fitness	2	800	16400	SOUTH
1003	Coffee Maker	Kitchenware	1	3500	3500	EAST
1004	Bluetooth Speaker	Electronics	4	12619	16400	WEST
1005	Running Shoes	Footwear	2	2500	5000	NORTH
1006	Smart Watch	Electronics	2	7000	14000	NULL
1007	Treadmill	Fitness	1	12619	16400	SOUTH
1008	Air Fryer	Kitchenware	3	4500	13500	EAST
1009	Vacuum Cleaner	Appliances	2	6000	16400	NORTH
1010	Dumbbells	Fitness	2	1500	3000	WEST
1011	Laptop Stand	Electronics	5	12619	16400	EAST
1012	Toaster	Kitchenware	1	2200	2200	SOUTH
1013	Air Purifier	Appliances	2	12000	24000	WEST
1014	Resistance Bands	Fitness	2	900	16400	NORTH
1015	Hair Dryer	Appliances	3	1800	5400	EAST
1016	Electric Kettle	Kitchenware	2	1500	16400	SOUTH
1017	Office Chair	Furniture	1	8000	8000	WEST
1018	Adjustable Dumbbells	Fitness	2	5500	11000	NORTH
1019	Soundbar	Electronics	1	20000	20000	EAST
1020	Yoga Block	Fitness	2	1200	16400	SOUTH
1021	Rice Cooker	Kitchenware	2	4000	8000	WEST

1022	Monitor	Electronics	2	15000	16400	NORTH
1023	Iron	Appliances	1	2500	2500	EAST
1024	Resistance Bands	Fitness	3	12619	16400	SOUTH
1025	Smart TV	Electronics	1	40000	40000	WEST
1026	Water Bottle	Kitchenware	5	200	1000	NORTH
1027	Sofa Set	Furniture	1	55000	55000	EAST
1028	Treadmill	Fitness	2	50000	16400	SOUTH
1029	Microwave Oven	Appliances	2	12000	24000	WEST
1030	Laptop	Electronics	1	70000	70000	NORTH

This step involved the data cleaning and transformation of the sales dataset in preparation for analysis.

First, missing values (NULLs) in **Quantity**, **Price_Per_Unit,** and **Total_Amount columns** were spotted with the help of **Conditiona**

Then, helper columns were created that filled these missing values with the rounded average of their respective columns, using Excel

As for the **Customer_Region column**, leading and trailing spaces were removed using the **TRIM() function**, ensuring that all names
with the help of the **UPPER() function.**

Question2- PivotTable Analysis

Customer_Reg	Sum of Total_Amount
EAST	116300
NORTH	137700

NULL	14000
SOUTH	100600
WEST	123400
Grand Total	**492000**

So the region with the highest revenue is **NORTH**, with a t

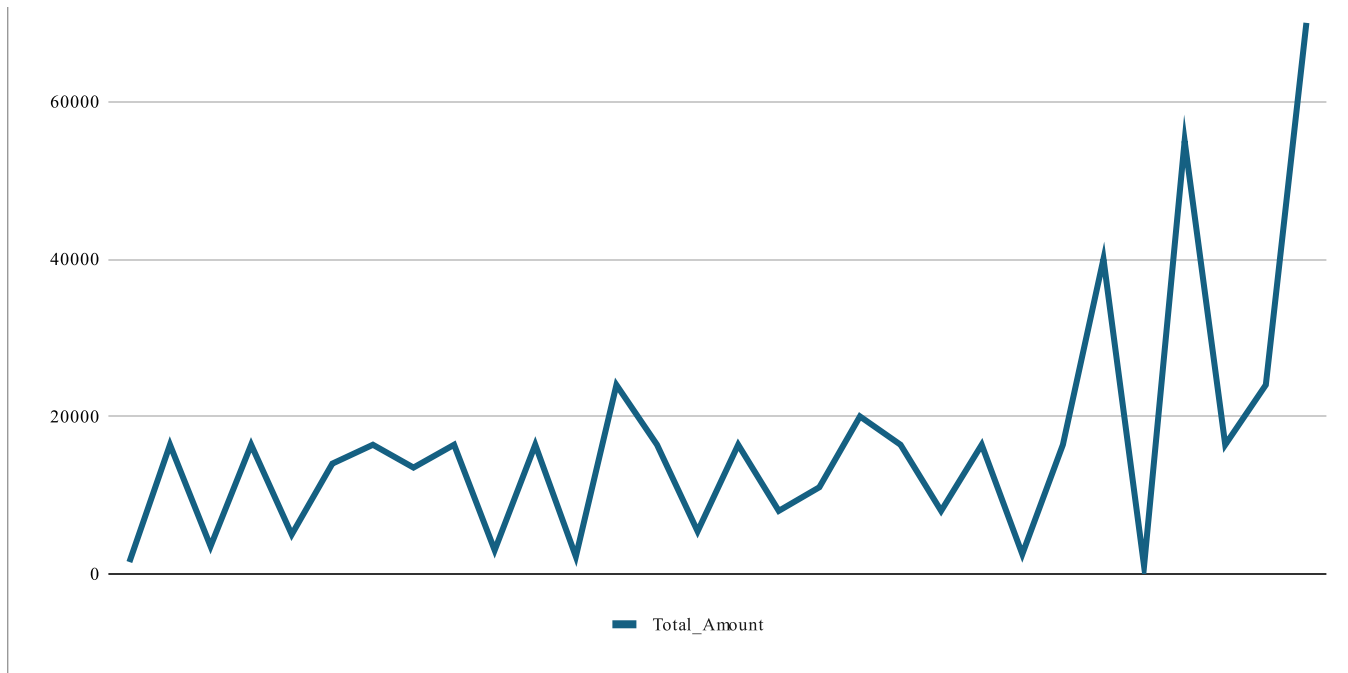## Question3- VLOOKUP and INDEX / M

Using VLOOKUP for Total_Amount of Order_ID 1015

5400

Question4- Trend Analysis

Revenue Trend Over Time

80000

60000

40000

20000

0

■ Total_Amount

A line chart was created using the **Order_Date** and **Total_Amou**
columns to visualize the sales revenue trend throughout **March 2(**
The chart revealed noticeable spikes in revenue around dates su
as **March 27** and **March 30**, corresponding to high-value orders like the **Sofa**
No clear seasonal trend was observed due to the short duration
(one month), but certain days showed higher activity, indicating pot
customer buying behavior near the month-end.

Order_ID	Product	Category	Quantity	Price_Per_Unit	Total_Amount	Customer_Region
1030	Laptop	Electronics	1	70000	70000	NORTH
1027	Sofa Set	Furniture	1	55000	55000	EAST
1025	Smart TV	Electronics	1	40000	40000	WEST

Calculated profit margins using a custom formula,
highlighted high-profit items (above ₹5,000), sorted
the data, and displayed the top 3 profitable products in a separate table.

Order_Date
45660
45691
45719
45750
45780
45811
45841
45872
45903
45933
45964
45994
13-03-2025
14-03-2025
15-03-2025
16-03-2025
17-03-2025
18-03-2025
19-03-2025
20-03-2025
21-03-2025
22-03-2025
23-03-2025
24-03-2025
25-03-2025
26-03-2025
27-03-2025
28-03-2025
29-03-2025
30-03-2025

Order_Date
1/3/2025
2/3/2025
3/3/2025
4/3/2025
5/3/2025
6/3/2025
7/3/2025
8/3/2025
9/3/2025
10/3/2025
11/3/2025
12/3/2025
3/13/2025
3/14/2025
3/15/2025
3/16/2025
3/17/2025
3/18/2025
3/19/2025
3/20/2025
3/21/2025

3/22/2025

3/23/2025

3/24/2025

3/25/2025

3/26/2025

3/27/2025

3/28/2025

3/29/2025

3/30/2025

al Formatting.

formulas.

s of the regions were in the same case

total of **₹137,700**.

MATCH operations

Using INDEX/MATCH for Category of Order_ID 1027
Furniture

unt

025.

ch

Set and **Laptop.**

ential

Order_Date	Profit_Mar
3/30/2025	28000
3/27/2025	22000
3/25/2025	16000