

Assignment Title: Excel with copilot

Question 1. Use Copilot to identify and summarize missing values in the dataset.

SOLUTION :

The screenshot shows an Excel spreadsheet with a table containing 12 rows of order data. The columns are: Order ID, Region, Country, Category, Sales Channel, Order Priority, Order Date, Units Sold, Unit Price, and Unit Cost. Row 3 (Order ID: ORD0001) has missing values in the Region, Country, and Category columns. The Copilot sidebar on the right is open, displaying the prompt: "How identify missing values through excel". Below the prompt, it says "Copilot: An generated content may be incorrect." and provides instructions: "To identify missing values in Excel, you can use the COUNTBLANK function to count empty cells in a range. For example, to count missing values in the 'Category' column (D2:D351):". A formula bar shows the formula: `=COUNTBLANK(D2:D351)`.

Order ID	Region	Country	Category	Sales Channel	Order Priority	Order Date	Units Sold	Unit Price	Unit Cost
ORD0001				Online	High	01-01-2023 00:00	215	152.90	191.8
ORD0002	West	India	Food	Online	Low	02-01-2023 00:00	341	487.90	119.84
ORD0003	North	India	Clothing	Offline	High	03-01-2023 00:00	279	479.94	87.14
ORD0004	East	USA	Furniture	Offline	Medium	04-01-2023 00:00	18	314.50	294.87
ORD0005	East	India	Furniture	Offline	Medium	05-01-2023 00:00	472	392.79	336.46
ORD0006	West	UK	Clothing	Online	High	06-01-2023 00:00	49	308.07	113.32
ORD0007	North	Germany	Clothing	Online	Low	07-01-2023 00:00	54	344.76	371.87
ORD0008	North	India	Beverage	Online	High	08-01-2023 00:00	279	332.12	349.59
ORD0009	East	India	Beverage	Online	Low	09-01-2023 00:00	404	278.74	86.36
ORD0010		USA	Furniture	Online	Medium	10-01-2023 00:00	410	308.79	314.94

Question 2. Use Copilot to fill missing values in the region and category columns.

SOLUTION :

The screenshot shows the same Excel spreadsheet as before, but now the missing values in the Region and Category columns for Order ID ORD0001 have been filled in. The Copilot sidebar on the right is open, displaying the prompt: "3. Fill with value from above (for contiguous blocks):". Below the prompt, it says "Copilot: An generated content may be incorrect." and provides instructions: "Select the range. Press Ctrl+G > Special > Blanks. Type = and click the cell above, then press Ctrl+Enter." and "Let me know which method you want to use or if you need a formula to automate filling!". A formula bar shows the formula: `=B3`.

Order ID	Region	Country	Category	Sales Channel	Order Priority	Order Date	Units Sold	Unit Price	Unit Cost
ORD0001	West	UK	Beverage	Offline	Low	29-03-2023 00:00	470	328.37	126.87
ORD0002	West	Germany	Beverage	Online	Medium	30-03-2023 00:00	90	389.5	371.23
ORD0003	West	India	Beverage	Online	Low	31-03-2023 00:00	123	279.38	298.93
ORD0004	North	Germany	Beverage	Online	High	01-03-2023 00:00	49	349.17	182.76
ORD0005	West	UK	Beverage	Online	Medium	02-03-2023 00:00	305	45.36	126.86
ORD0006	South	India	Clothing	Online	Low	03-03-2023 00:00	231	206.61	281.34
ORD0007	West	India	Electronics	Offline	Low	13-01-2023 00:00	47	232.11	180.88
ORD0008	North	Germany	Electronics	Online	High	14-01-2023 00:00	337	365.79	256.81
ORD0009	West	Germany	Electronics	Online	High	17-01-2023 00:00	290	298.67	251.82
ORD0010	West	India	Clothing	Offline	Medium	18-01-2023 00:00	358	328.5	270.37
ORD0011	West	USA	Beverage	Online	Medium	19-01-2023 00:00	189	242.34	223.95
ORD0012	East	India	Food	Offline	High	20-01-2023 00:00	99	309.79	289.13
ORD0013	South	Germany	Electronics	Offline	Medium	23-01-2023 00:00	413	167.86	58.23
ORD0014	North	Australia	Food	Offline	High	23-01-2023 00:00	463	217.74	86.37
ORD0015	South	Australia	Electronics	Online	Low	23-01-2023 00:00	46	379.42	327.86
ORD0016	West	UK	Electronics	Offline	Medium	24-01-2023 00:00	325	436.56	130.37
ORD0017	West	India	Electronics	Offline	Medium	25-01-2023 00:00	189	219.66	51.31
ORD0018	South	India	Beverage	Offline	High	26-01-2023 00:00	470	36.61	81.21

Question 3. Fill missing numeric values in the units sold and unit price columns.

SOLUTION :

=COUNTBLANK(A2:I352)										
Order ID	Region	Country	Category	Sales Channel	Order Priority	Order Date	Units Sold	Unit Price	Unit Cost	
ORD0001	East	Germany	Beverage	Online	High	01-01-2023 08:00	235	152.92	151.6	
ORD0002	West	India	Food	Online	Low	02-01-2023 08:00	341	467.92	139.84	
ORD0003	North	India	Clothing	Offline	High	03-01-2023 08:00	179	473.94	97.14	
ORD0004	East	USA	Furniture	Offline	Medium	04-01-2023 08:00	18	314.53	284.87	
ORD0005	East	India	Furniture	Offline	Medium	05-01-2023 08:00	472	292.79	182.96	
ORD0006	West	UK	Food	Online	Low	06-01-2023 08:00	324	467.92	139.84	
ORD0007	South	India	Clothing	Online	Low	07-01-2023 08:00	232	394.46	281.84	
ORD0008	South	Germany	Food	Online	High	08-01-2023 08:00	327	114.18	57.4	
ORD0009	North	Germany	Beverage	Online	Medium	09-01-2023 08:00	358	212.11	359.51	
ORD0010	West	UK	Food	Online	High	10-01-2023 08:00	124	212.11	312.07	
ORD0011	North	India	Clothing	Online	Medium	11-01-2023 08:00	195	421.62	128.38	
ORD0012	North	UK	Clothing	Online	High	12-01-2023 08:00	195	91.33	388.21	

missing units sold values

There are 10 missing values in the "Units Sold" column. This is shown in cell H1, which uses the formula:

`=COUNTBLANK(H2:I352)`

This formula counts the number of blank cells in the "Units Sold" column.

=COUNTBLANK(I2:I352)										
Order ID	Region	Country	Category	Sales Channel	Order Priority	Order Date	Units Sold	Unit Price	Unit Cost	
ORD0001	East	Germany	Beverage	Online	High	01-01-2023 08:00	235	152.92	151.6	
ORD0002	West	India	Food	Online	Low	02-01-2023 08:00	341	467.92	139.84	
ORD0003	North	India	Clothing	Offline	High	03-01-2023 08:00	179	473.94	97.14	
ORD0004	East	USA	Furniture	Offline	Medium	04-01-2023 08:00	18	314.53	284.87	
ORD0005	East	India	Furniture	Offline	Medium	05-01-2023 08:00	472	292.79	182.96	
ORD0006	West	UK	Food	Online	Low	06-01-2023 08:00	324	467.92	139.84	
ORD0007	South	India	Clothing	Online	Low	07-01-2023 08:00	232	394.46	281.84	
ORD0008	South	Germany	Food	Online	High	08-01-2023 08:00	327	114.18	57.4	
ORD0009	North	Germany	Beverage	Online	Medium	09-01-2023 08:00	358	212.11	359.51	
ORD0010	West	UK	Food	Online	High	10-01-2023 08:00	124	212.11	312.07	
ORD0011	North	India	Clothing	Online	Medium	11-01-2023 08:00	195	421.62	128.38	
ORD0012	North	UK	Clothing	Online	High	12-01-2023 08:00	195	91.33	388.21	

There are 10 missing values in the "Unit Price" column.

This is shown in cell I1 of the "data" sheet (which uses the formula below), and also summarized in Table1 on "Sheet1".

`=COUNTBLANK(I2:I352)`

Question 4. Create a new calculated column total revenue.

SOLUTION :

=SUM(J2:J352)										
Order ID	Region	Country	Category	Sales Channel	Order Priority	Order Date	Units Sold	Unit Price	Unit Cost	
ORD0001	East	Germany	Beverage	Online	High	01-01-2023 08:00	235	152.92	151.6	35936.2
ORD0002	West	India	Food	Online	Low	02-01-2023 08:00	341	467.92	139.84	159580.72
ORD0003	North	India	Clothing	Offline	High	03-01-2023 08:00	179	473.94	97.14	84833.36
ORD0004	East	USA	Furniture	Offline	Medium	04-01-2023 08:00	18	314.53	284.87	5661.34
ORD0005	East	India	Furniture	Offline	Medium	05-01-2023 08:00	472	292.79	182.96	139186.88
ORD0006	West	Germany	Food	Online	High	14-12-2023 08:00	360	63.24	111.74	22722.12
ORD0007	West	Germany	Beverage	Online	Low	15-12-2023 08:00	232	117.34	111.49	27209.28
ORD0008	East	UK	Clothing	Offline	High	16-12-2023 08:00	425	174.13	535.26	74005.25
							Total Revenue	2241840.7		

To create a new calculated column "Total Revenue" in your table (range A2:J352), use this formula in cell J3 (assuming column K is available):

`=H3*I3`

Drag or copy this formula down from J3 to J352 to calculate "Total Revenue" for each row.

Question 5. Use Copilot to find the total price of Order ID = 'ORD0123'.

SOLUTION :

1325 X ✓ f_x -XL00KP("ORD0123",A3:A352,K3:K352)

Order ID	Region	Country	Category	Sales Channel	Order Priority	Order Date	Units Sold	Unit Price	Unit Cost	Total price
ORD0001	East	Germany	Beverage	Online	High	02-01-2023 08:08	235	151.83	153.6	35886.2
ORD0002	West	India	Food	Online	Low	02-01-2023 08:08	341	467.82	139.84	159560.32
ORD0003	North	India	Clothing	Offline	High	03-01-2023 08:08	179	473.94	97.34	84825.26
ORD0004	East	USA	Furniture	Offline	Medium	04-01-2023 08:08	18	304.53	264.87	5681.54
ORD0005	East	India	Furniture	Offline	Medium	05-01-2023 08:08	472	392.79	330.46	183096.88
ORD0123	South	Germany	Clothing	Online	Low	03-09-2023 08:08	98	344.33	277.33	13889.3

Copilot (AI-generated content may be incorrect)

To find the total price for Order ID 'ORD0123', you can use the XL00KP function to search for the Order ID and return the corresponding value from the "total revenue" column.

Here's the formula:

=XL00KP("ORD0123",A3:A352,K3:K352)

Question 6. Use Copilot to generate a summary chart of average profit by region.

SOLUTION :



Question 7. Create a pivot table summarizing total sales by category and region.

SOLUTION :

Order ID	Region	Country	Category	Sales Channel	Order Priority	Order Date	Units Sold	Unit Price	Unit Cost
ORD0001	East	Germany	Beverage	Online	High	02-01-2023 08:08	235	151.82	153.6
ORD0002	West	India	Food	Online	Low	02-01-2023 08:08	341	467.82	139.84
ORD0003	North	India	Clothing	Offline	High	03-01-2023 08:08	179	473.94	97.34
ORD0004	East	USA	Furniture	Offline	Medium	04-01-2023 08:08	18	304.53	264.87
ORD0005	East	India	Furniture	Offline	Medium	05-01-2023 08:08	472	392.79	330.46
ORD0006	West	UK	Clothing	Online	High	02-01-2023 08:08	49	308.07	113.12
ORD0007	North	Germany	Clothing	Online	Low	03-01-2023 08:08	34	244.78	277.27
ORD0008	North	India	Beverage	Online	High	03-01-2023 08:08	270	332.11	349.59
ORD0009	East	India	Beverage	Online	Low	04-01-2023 08:08	404	278.74	86.38
ORD0010	East	USA	Furniture	Online	Medium	05-01-2023 08:08	452	300.75	314.96
ORD0011	East	USA	Food	Online	Low	02-01-2023 08:08	235	390	230.69
ORD0012	East	UK	Furniture	Offline	Medium	04-01-2023 08:08	481	245.05	227.5

Copilot (AI-generated content may be incorrect)

Here's the pivot table summarizing total sales by category and region:

Category	East	North
Beverages	685,200	986,900
Clothing	1,695,900	642,500
Electronics	1,095,900	1,272,080
Food	689,500	1,667,080

Show total sales by region Provide the total sales figures for each category

Message Copilot

Here's the pivot table summarizing total sales by category and region:

	East	North	South
	888,200	986,000	1,146,000
	1,699,000	642,500	496,500
	1,039,000	1,272,000	1,123,000
	889,500	1,687,000	648,400

Question 8. Build a dashboard combining key KPIs and charts.

SOLUTION :

Analysis ▾

Your **dashboard** has been created successfully! It includes:

- ✓ **Key KPIs**
 - Total Sales
 - Total Profit
- ✓ **Charts**
 - Bar chart: Average Profit by Region

Add trend analysis to the dashboard Include customer satisfaction metrics

Provide recommendations based on the data

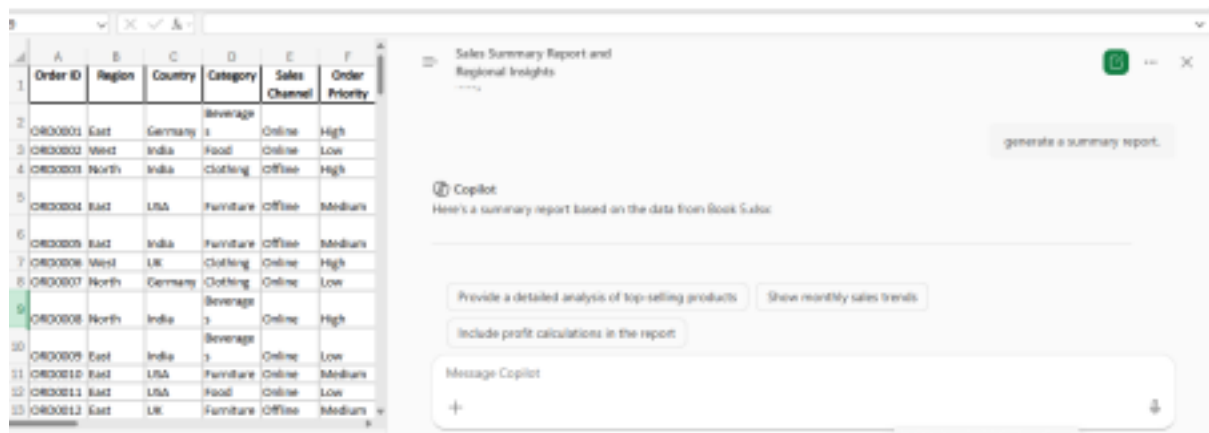
Message Copilot

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dashboard.xlsx

Question 9. Use Copilot to generate a summary report.

SOLUTION :



Sales Summary Report

1. Overview

- The dataset contains sales records for various regions, countries, and product categories.
- Key columns include Order ID, Region, Country, Category, Sales Channel, Order Priority, Order Date, Units Sold, Unit Price, and Unit Cost.

2. Regional Performance

- The chart provided shows **Average Profit by Region**:
 - **South**: Highest average profit at 16.9k
 - **North**: 15.8k
 - **East**: 13.2k
 - **West**: 13.1k
- **South** and **North** regions are leading in profitability.

3. Product Categories

- Categories include Beverages, Food, Clothing, Furniture, Electronics.

Sales are distributed across both **Online** and **Offline** channels.

4. Sales Channels

- Both **Online** and **Offline** channels are used.
- Orders have varying priorities: High, Medium, Low.

5. Key Insights

- **Furniture** and **Electronics** appear frequently, indicating strong sales in these categories.
- **India**, **Germany**, **USA**, **UK**, and **Australia** are major countries in the dataset.
- **Order Priority** varies, with many high-priority orders in Electronics and Clothing.

6. Potential Actions

- Focus marketing efforts on **South** and **North** regions to leverage higher profitability.
 - Analyze top-performing categories for further growth opportunities.
- Consider strategies to boost sales in **West** and **East** regions.