The dataset used is Sample Superstore Dataset.csv - which has column headers:

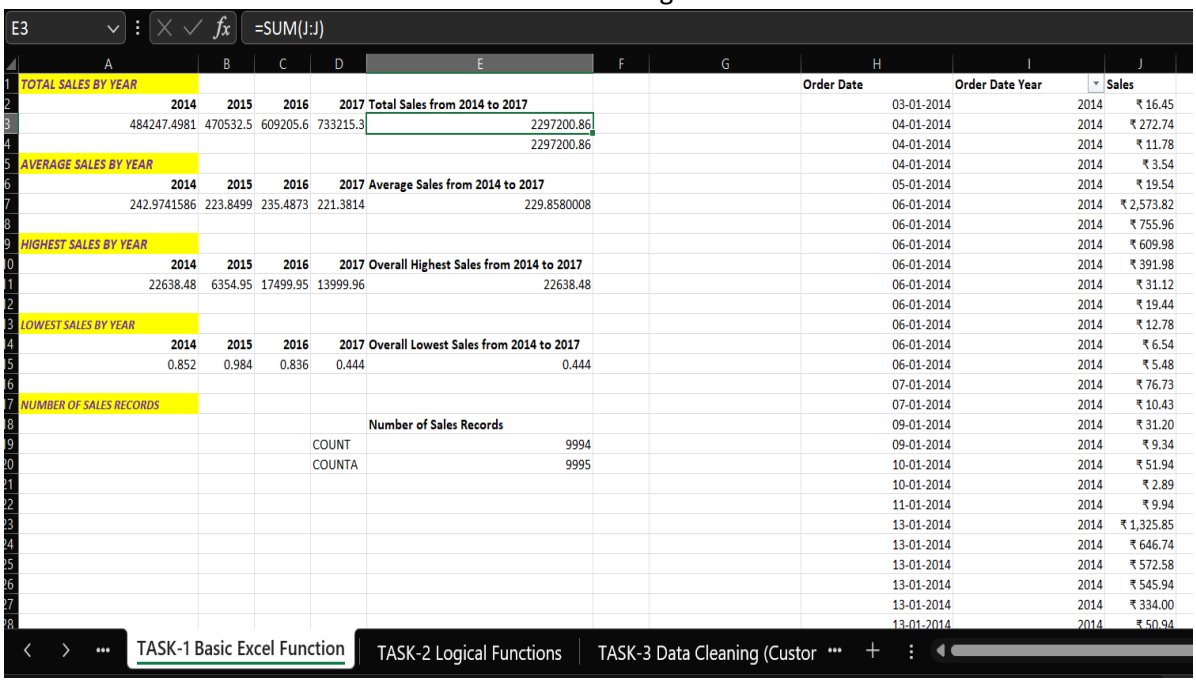
Row ID,	Order ID	Order Date	Ship Date
Ship Mode	Customer ID	Customer Name	Segment
Country	City	State	Postal Code
Region	Product ID	Category	Sub-Category
Product Name	Sales	Quantity	Discount
Profit			

DATA CLEANING:

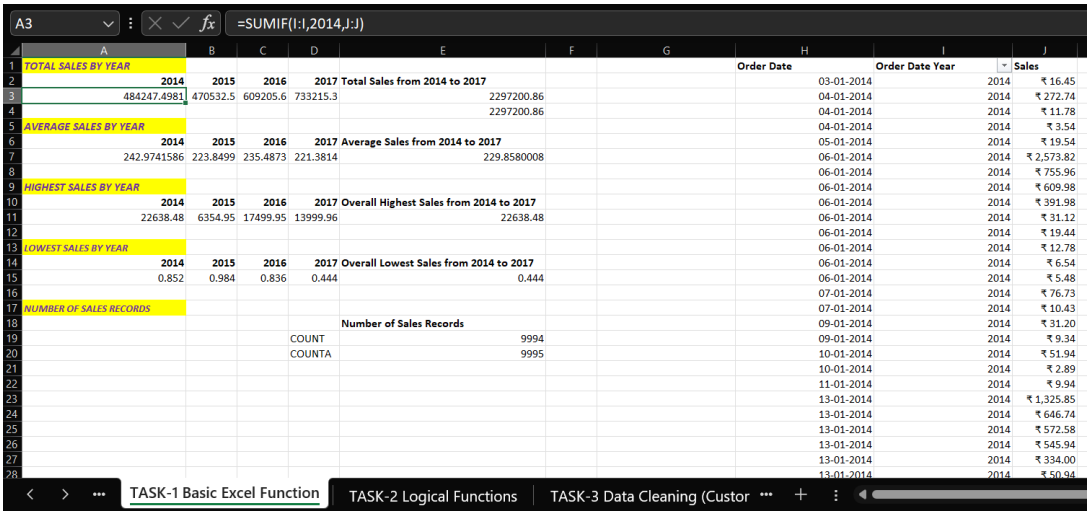
- Changed the Order Date and Ship Date columns to dd-mm-yyyy format from text format and mm-dd-yyyy format.
- Sorted the whole data according to Order Date from Oldest to Newest.
- The data is from Order Date 03-01-2014 to 30-12-2017.

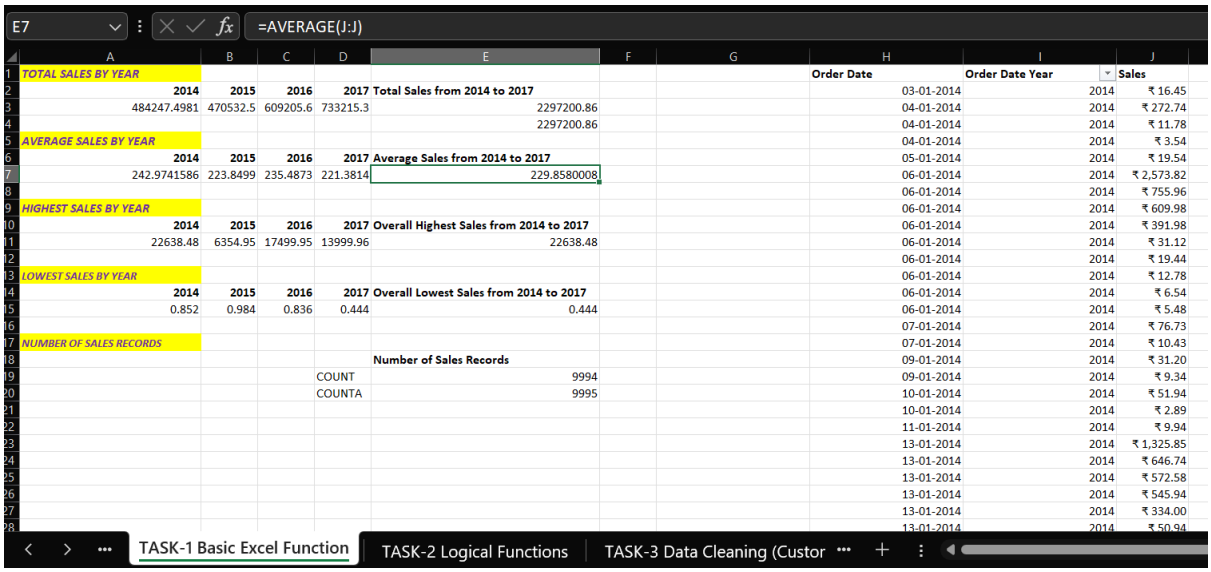
❖ TASK-1 Basic Excel Functions:

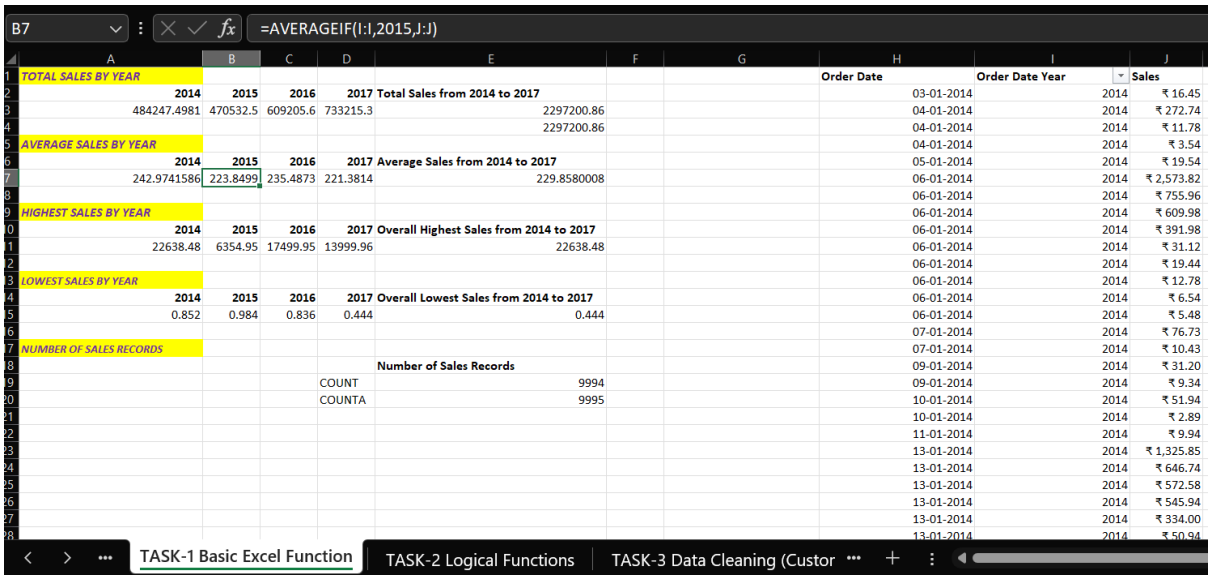
- Extracted the Year from the Order Date by using the YEAR() function and changing the Format to "Number".
- Calculated Total sales, Average Sales, Max and Min Sales for each year from 2014 to 2017 and overall from 2014 to 2017 using SUM, SUMIF, AVERAGE, AVERAGE IF, MAXIFS, MINIFS, MAX, MIN functions.
- Calculated Number of Sales Records using COUNT AND COUNTA functions.

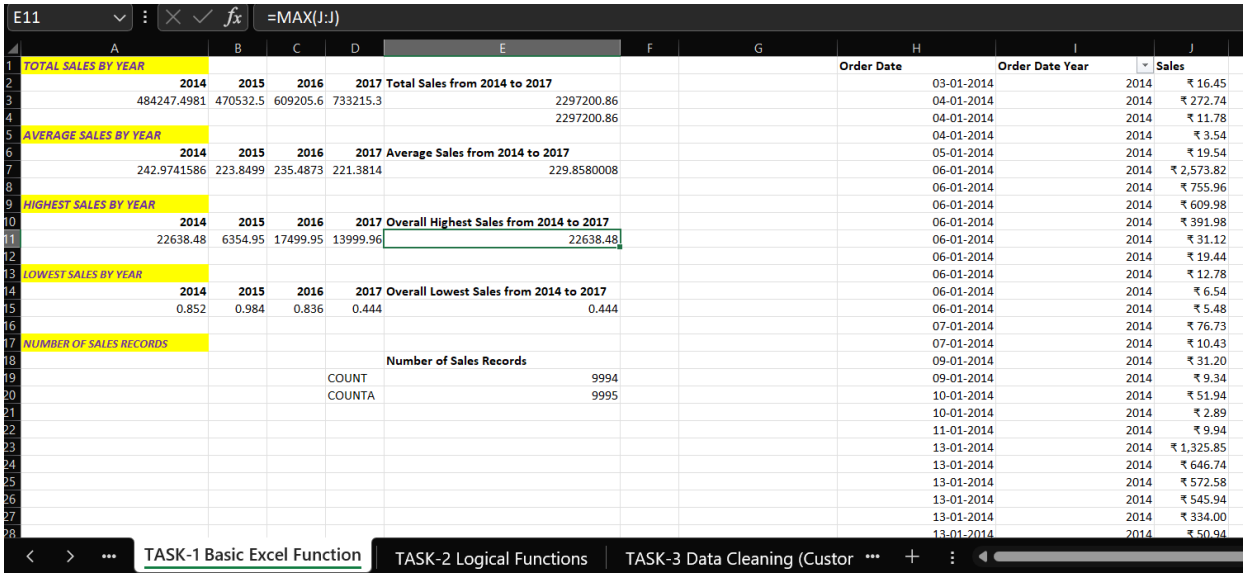


A	B	C	D	E	F	G	H	I	J
TOTAL SALES BY YEAR							Order Date	Order Date Year	Sales
2014	2015	2016	2017	Total Sales from 2014 to 2017			03-01-2014	2014	₹ 16.45
484247.4981	470532.5	609205.6	733215.3	2297200.86			04-01-2014	2014	₹ 272.74
				2297200.86			04-01-2014	2014	₹ 11.78
AVERAGE SALES BY YEAR							04-01-2014	2014	₹ 3.54
2014	2015	2016	2017	Average Sales from 2014 to 2017			05-01-2014	2014	₹ 19.54
242.9741586	223.8499	235.4873	221.3814	229.8580008			06-01-2014	2014	₹ 2,573.82
							06-01-2014	2014	₹ 755.96
HIGHEST SALES BY YEAR							06-01-2014	2014	₹ 609.98
2014	2015	2016	2017	Overall Highest Sales from 2014 to 2017			06-01-2014	2014	₹ 391.98
22638.48	6354.95	17499.95	13999.96	22638.48			06-01-2014	2014	₹ 31.12
							06-01-2014	2014	₹ 19.44
LOWEST SALES BY YEAR							06-01-2014	2014	₹ 12.78
2014	2015	2016	2017	Overall Lowest Sales from 2014 to 2017			06-01-2014	2014	₹ 6.54
0.852	0.984	0.836	0.444	0.444			06-01-2014	2014	₹ 5.48
							07-01-2014	2014	₹ 76.73
NUMBER OF SALES RECORDS							07-01-2014	2014	₹ 10.43
				Number of Sales Records			09-01-2014	2014	₹ 31.20
			COUNT	9994			09-01-2014	2014	₹ 9.34
			COUNTA	9995			10-01-2014	2014	₹ 51.94
							10-01-2014	2014	₹ 2.89
							11-01-2014	2014	₹ 9.94
							13-01-2014	2014	₹ 1,325.85
							13-01-2014	2014	₹ 646.74
							13-01-2014	2014	₹ 572.58
							13-01-2014	2014	₹ 545.94
							13-01-2014	2014	₹ 334.00
							13-01-2014	2014	₹ 50.94

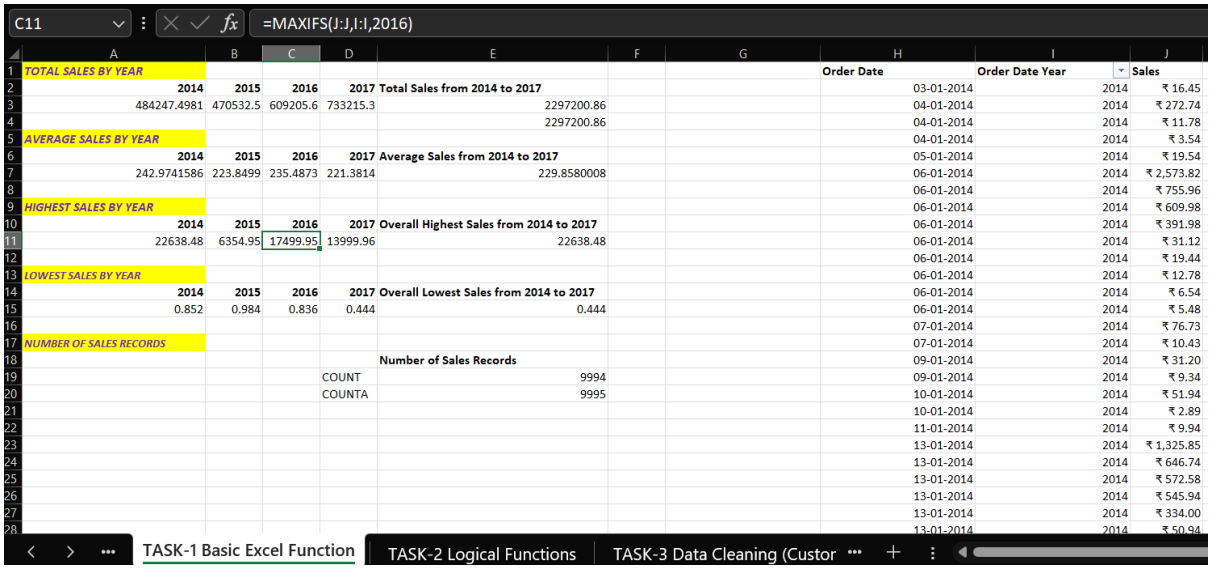

A3
=SUMIF(I:I,2014,J:J)
TOTAL SALES BY YEAR
2014 2015 2016 2017 Total Sales from 2014 to 2017
484247.4981 470532.5 609205.6 733215.3 2297200.86
2297200.86
AVERAGE SALES BY YEAR
2014 2015 2016 2017 Average Sales from 2014 to 2017
242.9741586 223.8499 235.4873 221.3814 229.8580008
HIGHEST SALES BY YEAR
2014 2015 2016 2017 Overall Highest Sales from 2014 to 2017
22638.48 6354.95 17499.95 13999.96 22638.48
LOWEST SALES BY YEAR
2014 2015 2016 2017 Overall Lowest Sales from 2014 to 2017
0.852 0.984 0.836 0.444 0.444
NUMBER OF SALES RECORDS
Number of Sales Records
COUNT 9994
COUNTA 9995
Order Date Order Date Year Sales
TASK-1 Basic Excel Function
TASK-2 Logical Functions
TASK-3 Data Cleaning (Custor


E7
=AVERAGE(J:J)
TOTAL SALES BY YEAR
2014 2015 2016 2017 Total Sales from 2014 to 2017
484247.4981 470532.5 609205.6 733215.3 2297200.86
2297200.86
AVERAGE SALES BY YEAR
2014 2015 2016 2017 Average Sales from 2014 to 2017
242.9741586 223.8499 235.4873 221.3814 229.8580008
HIGHEST SALES BY YEAR
2014 2015 2016 2017 Overall Highest Sales from 2014 to 2017
22638.48 6354.95 17499.95 13999.96 22638.48
LOWEST SALES BY YEAR
2014 2015 2016 2017 Overall Lowest Sales from 2014 to 2017
0.852 0.984 0.836 0.444 0.444
NUMBER OF SALES RECORDS
Number of Sales Records
COUNT 9994
COUNTA 9995
Order Date Order Date Year Sales
TASK-1 Basic Excel Function
TASK-2 Logical Functions
TASK-3 Data Cleaning (Custor


B7
=AVERAGEIF(I:I,2015,J:J)
TOTAL SALES BY YEAR
2014 2015 2016 2017 Total Sales from 2014 to 2017
484247.4981 470532.5 609205.6 733215.3 2297200.86
2297200.86
AVERAGE SALES BY YEAR
2014 2015 2016 2017 Average Sales from 2014 to 2017
242.9741586 223.8499 235.4873 221.3814 229.8580008
HIGHEST SALES BY YEAR
2014 2015 2016 2017 Overall Highest Sales from 2014 to 2017
22638.48 6354.95 17499.95 13999.96 22638.48
LOWEST SALES BY YEAR
2014 2015 2016 2017 Overall Lowest Sales from 2014 to 2017
0.852 0.984 0.836 0.444 0.444
NUMBER OF SALES RECORDS
Number of Sales Records
COUNT 9994
COUNTA 9995
Order Date Order Date Year Sales
TASK-1 Basic Excel Function
TASK-2 Logical Functions
TASK-3 Data Cleaning (Custor



TOTAL SALES BY YEAR									
2014	2015	2016	2017	Total Sales from 2014 to 2017			Order Date	Order Date Year	Sales
484247.4981	470532.5	609205.6	733215.3	2297200.86			03-01-2014	2014	₹ 16.45
				2297200.86			04-01-2014	2014	₹ 272.74
AVERAGE SALES BY YEAR							04-01-2014	2014	₹ 11.78
2014	2015	2016	2017	Average Sales from 2014 to 2017			04-01-2014	2014	₹ 3.54
242.9741586	223.8499	235.4873	221.3814	229.8580008			05-01-2014	2014	₹ 19.54
							06-01-2014	2014	₹ 2,573.82
HIGHEST SALES BY YEAR							06-01-2014	2014	₹ 755.96
2014	2015	2016	2017	Overall Highest Sales from 2014 to 2017			06-01-2014	2014	₹ 609.98
22638.48	6354.95	17499.95	13999.96	22638.48			06-01-2014	2014	₹ 391.98
							06-01-2014	2014	₹ 31.12
LOWEST SALES BY YEAR							06-01-2014	2014	₹ 19.44
2014	2015	2016	2017	Overall Lowest Sales from 2014 to 2017			06-01-2014	2014	₹ 12.78
0.852	0.984	0.836	0.444	0.444			06-01-2014	2014	₹ 6.54
							06-01-2014	2014	₹ 5.48
NUMBER OF SALES RECORDS							07-01-2014	2014	₹ 76.73
				Number of Sales Records			07-01-2014	2014	₹ 10.43
			COUNT	9994			09-01-2014	2014	₹ 31.20
			COUNTA	9995			09-01-2014	2014	₹ 9.34
							10-01-2014	2014	₹ 51.94
							10-01-2014	2014	₹ 2.89
							11-01-2014	2014	₹ 9.94
							13-01-2014	2014	₹ 1,325.85
							13-01-2014	2014	₹ 646.74
							13-01-2014	2014	₹ 572.58
							13-01-2014	2014	₹ 545.94
							13-01-2014	2014	₹ 334.00
							13-01-2014	2014	₹ 50.94



TOTAL SALES BY YEAR									
2014	2015	2016	2017	Total Sales from 2014 to 2017			Order Date	Order Date Year	Sales
484247.4981	470532.5	609205.6	733215.3	2297200.86			03-01-2014	2014	₹ 16.45
				2297200.86			04-01-2014	2014	₹ 272.74
AVERAGE SALES BY YEAR							04-01-2014	2014	₹ 11.78
2014	2015	2016	2017	Average Sales from 2014 to 2017			04-01-2014	2014	₹ 3.54
242.9741586	223.8499	235.4873	221.3814	229.8580008			05-01-2014	2014	₹ 19.54
							06-01-2014	2014	₹ 2,573.82
HIGHEST SALES BY YEAR							06-01-2014	2014	₹ 755.96
2014	2015	2016	2017	Overall Highest Sales from 2014 to 2017			06-01-2014	2014	₹ 609.98
22638.48	6354.95	17499.95	13999.96	22638.48			06-01-2014	2014	₹ 391.98
							06-01-2014	2014	₹ 31.12
LOWEST SALES BY YEAR							06-01-2014	2014	₹ 19.44
2014	2015	2016	2017	Overall Lowest Sales from 2014 to 2017			06-01-2014	2014	₹ 12.78
0.852	0.984	0.836	0.444	0.444			06-01-2014	2014	₹ 6.54
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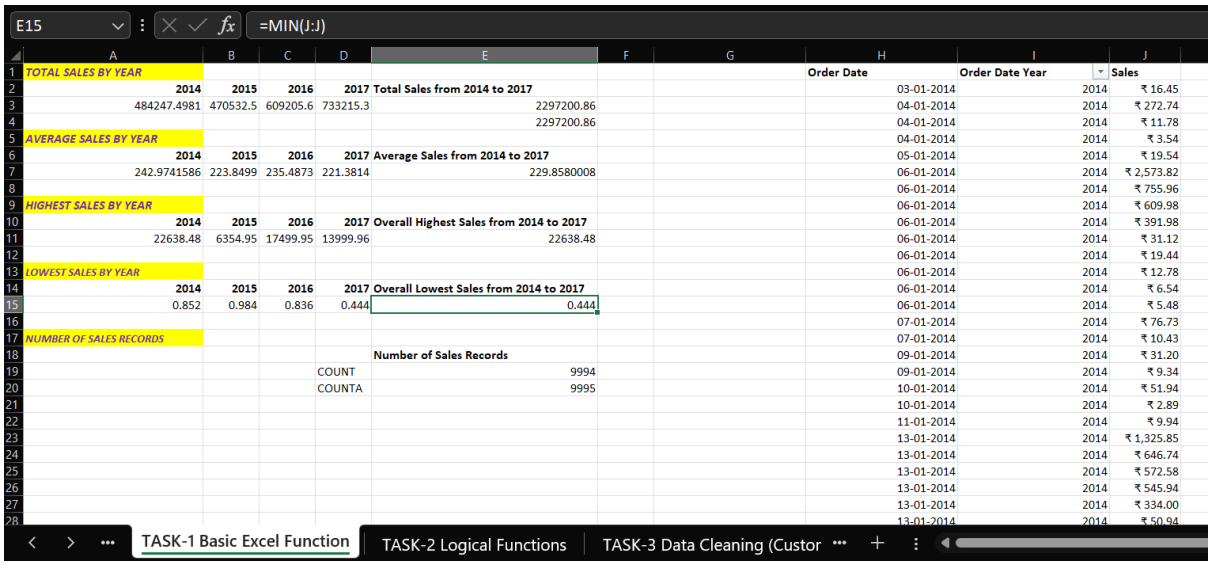
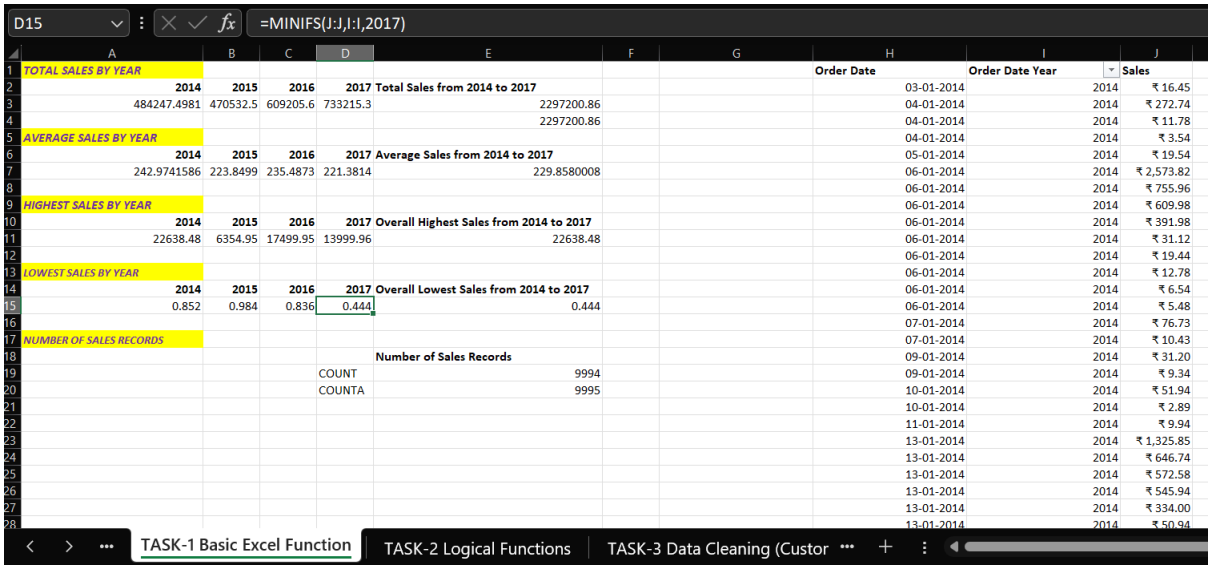
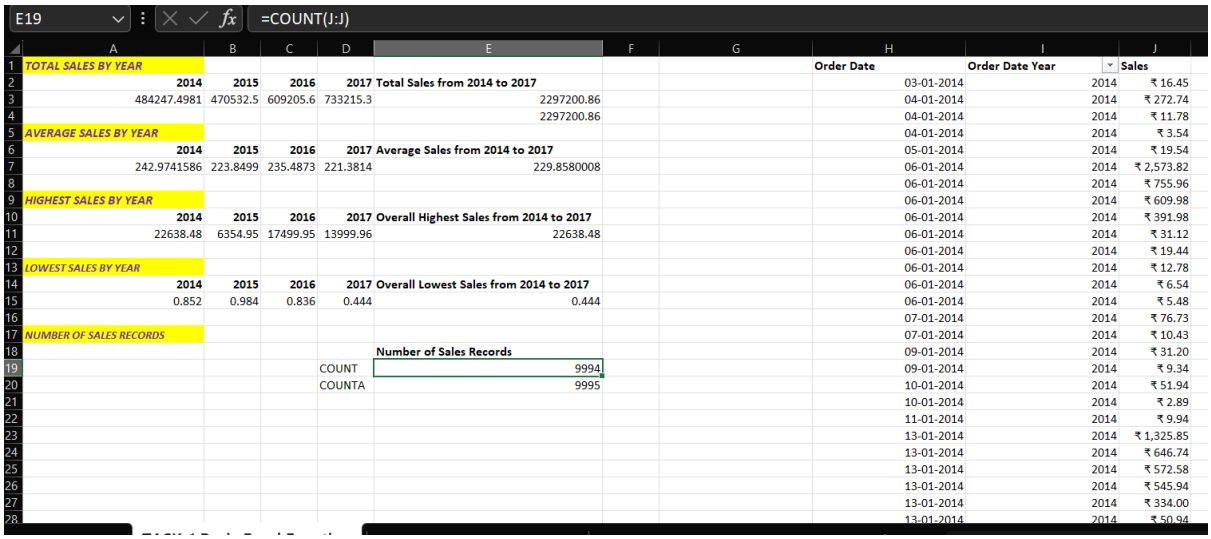
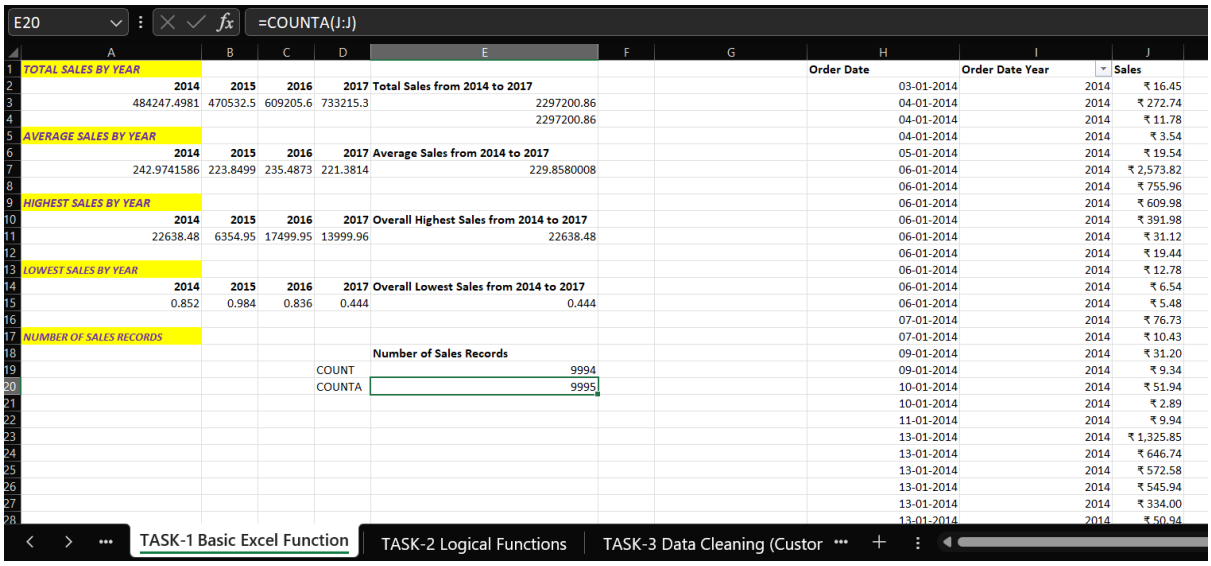
NUMBER OF SALES RECORDS							07-01-2014	2014	₹ 76.73
				Number of Sales Records			07-01-2014	2014	₹ 10.43
			COUNT	9994			09-01-2014	2014	₹ 31.20
			COUNTA	9995			09-01-2014	2014	₹ 9.34
							10-01-2014	2014	₹ 51.94
							10-01-2014	2014	₹ 2.89
							11-01-2014	2014	₹ 9.94
							13-01-2014	2014	₹ 1,325.85
							13-01-2014	2014	₹ 646.74
							13-01-2014	2014	₹ 572.58
							13-01-2014	2014	₹ 545.94
							13-01-2014	2014	₹ 334.00
							13-01-2014	2014	₹ 50.94



TOTAL SALES BY YEAR									
2014	2015	2016	2017	Total Sales from 2014 to 2017			Order Date	Order Date Year	Sales
484247.4981	470532.5	609205.6	733215.3	2297200.86			03-01-2014	2014	₹ 16.45
				2297200.86			04-01-2014	2014	₹ 272.74
AVERAGE SALES BY YEAR							04-01-2014	2014	₹ 11.78
2014	2015	2016	2017	Average Sales from 2014 to 2017			04-01-2014	2014	₹ 3.54
242.9741586	223.8499	235.4873	221.3814	229.8580008			05-01-2014	2014	₹ 19.54
							06-01-2014	2014	₹ 2,573.82
HIGHEST SALES BY YEAR							06-01-2014	2014	₹ 755.96
2014	2015	2016	2017	Overall Highest Sales from 2014 to 2017			06-01-2014	2014	₹ 609.98
22638.48	6354.95	17499.95	13999.96	22638.48			06-01-2014	2014	₹ 391.98
							06-01-2014	2014	₹ 31.12
LOWEST SALES BY YEAR							06-01-2014	2014	₹ 19.44
2014	2015	2016	2017	Overall Lowest Sales from 2014 to 2017			06-01-2014	2014	₹ 12.78
0.852	0.984	0.836	0.444	0.444			06-01-2014	2014	₹ 6.54
							06-01-2014	2014	₹ 5.48
NUMBER OF SALES RECORDS							07-01-2014	2014	₹ 76.73
				Number of Sales Records			07-01-2014	2014	₹ 10.43
			COUNT	9994			09-01-2014	2014	₹ 31.20
			COUNTA	9995			09-01-2014	2014	₹ 9.34
							10-01-2014	2014	₹ 51.94
							10-01-2014	2014	₹ 2.89
							11-01-2014	2014	₹ 9.94
							13-01-2014	2014	₹ 1,325.85
							13-01-2014	2014	₹ 646.74
							13-01-2014	2014	₹ 572.58
							13-01-2014	2014	₹ 545.94
							13-01-2014	2014	₹ 334.00
							13-01-2014	2014	₹ 50.94


D15
=MINIFS(J:J,I:I,2017)
TASK-1 Basic Excel Function
TASK-2 Logical Functions
TASK-3 Data Cleaning (Custor


E19
=COUNT(J:J)


E20
=COUNTA(J:J)
TASK-1 Basic Excel Function
TASK-2 Logical Functions
TASK-3 Data Cleaning (Custor

❖ TASK-2 LOGICAL FUNCTIONS:

- Used the IF() function to classify sales using the column"Sales Level"
  If Sales > 2000 → "Good Sales" ; Else → "Bad Sales"

E5 =IF(C5>2000,"Good Sales","Bad Sales")

	Product ID	Category	Sales	Profit	Sales Level	Performance
2	OFF-PA-10000174	Office Supplies	₹ 16.45	₹ 5.55	Bad Sales	Bad Performnace
3	OFF-LA-10003223	Office Supplies	₹ 11.78	₹ 4.27	Bad Sales	Bad Performnace
4	OFF-ST-10002743	Office Supplies	₹ 272.74	-₹ 64.77	Bad Sales	Bad Performnace
5	OFF-BI-10004094	Office Supplies	₹ 3.54	-₹ 5.49	Bad Sales	Bad Performnace
6	OFF-AR-10003478	Office Supplies	₹ 19.54	₹ 4.88	Bad Sales	Bad Performnace
7	OFF-PA-10002005	Office Supplies	₹ 19.44	₹ 9.33	Bad Sales	Bad Performnace
8	OFF-AR-10002399	Office Supplies	₹ 12.78	₹ 5.24	Bad Sales	Bad Performnace
9	FUR-CH-10004063	Furniture	₹ 2,573.82	₹ 746.41	Good Sales	Good Performance

- Used AND() or OR() to create a condition-based column "Performance"
  IF Sales > 2000 AND Profit > 700 → "Good Performance" ; "Bad Performance".

F9 =IF(AND(C9>2000,D9>700),"Good Performance","Bad Performnace")

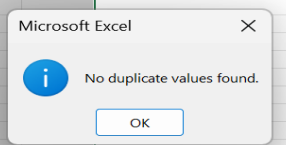
	Product ID	Category	Sales	Profit	Sales Level	Performance
2	OFF-PA-10000174	Office Supplies	₹ 16.45	₹ 5.55	Bad Sales	Bad Performnace
3	OFF-LA-10003223	Office Supplies	₹ 11.78	₹ 4.27	Bad Sales	Bad Performnace
4	OFF-ST-10002743	Office Supplies	₹ 272.74	-₹ 64.77	Bad Sales	Bad Performnace
5	OFF-BI-10004094	Office Supplies	₹ 3.54	-₹ 5.49	Bad Sales	Bad Performnace
6	OFF-AR-10003478	Office Supplies	₹ 19.54	₹ 4.88	Bad Sales	Bad Performnace
7	OFF-PA-10002005	Office Supplies	₹ 19.44	₹ 9.33	Bad Sales	Bad Performnace
8	OFF-AR-10002399	Office Supplies	₹ 12.78	₹ 5.24	Bad Sales	Bad Performnace
9	FUR-CH-10004063	Furniture	₹ 2,573.82	₹ 746.41	Good Sales	Good Performance
10	OFF-BI-10004632	Office Supplies	₹ 609.98	₹ 274.49	Bad Sales	Bad Performnace
11	OFF-AR-10001662	Office Supplies	₹ 5.48	₹ 1.48	Bad Sales	Bad Performnace

❖ TASK-3 DATA CLEANING:

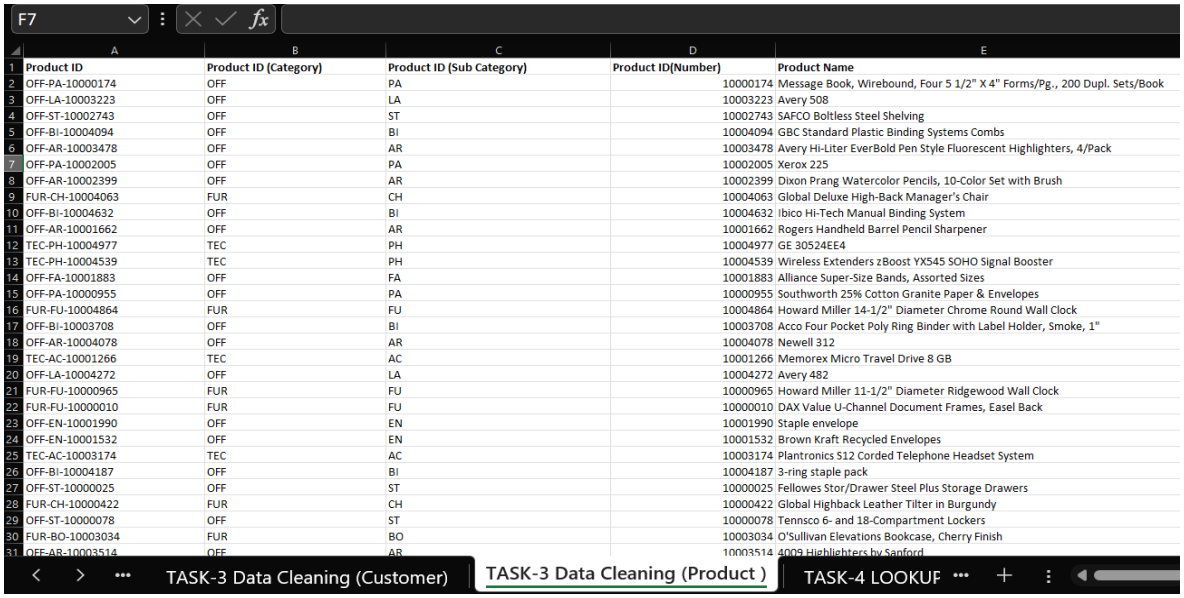
- Clean the Customer / Product Name column using: o TRIM() o PROPER() (Not used).
- Removed duplicate records from the dataset Customer and Product.
- Used Text to Columns to split: Customer Name and Product ID.
- Use Find & Replace to fix spelling mistakes (if any) (Not needed here)

DP-13000

Customer ID	Customer Name	First Name	Last Name	
DP-13000	Darren Powers	Darren	Powers	
PO-19195	Phillina Ober	Phillina	Ober	
MB-18085	Mick Brown	Mick	Brown	
LS-17230	Lycoris Saunders	Lycoris	Saunders	
JO-15145	Jack O'Briant	Jack	O'Briant	
ME-17320	Maria Etezadi	Maria	Etezadi	
VS-21820	Vivek Sundaresam	Vivek	Sundaresam	
MS-17830	Melanie Seite	Melanie	Seite	
AJ-10780	Anthony Jacobs	Anthony	Jacobs	
SV-20365	Seth Vernon	Seth	Vernon	
CS-12250	Chris Selesnick	Chris	Selesnick	
ND-18370	Natalie DeCherney	Natalie	DeCherney	
BD-11605	Brian Dahlen	Brian	Dahlen	
MM-17920	Michael Moore	Michael	Moore	
BS-11590	Brendan Sweed	Brendan	Sweed	
EH-13990	Erica Hackney	Erica	Hackney	
DL-13315	Delfina Latchford	Delfina	Latchford	
DW-13195	David Wiener	David	Wiener	
TS-21340	Toby Swindell	Toby	Swindell	
HL-15040	Hunter Lopez	Hunter	Lopez	
MV-17485	Mark Van Huff	Mark	Van	Huff
XP-21865	Xylona Preis	Xylona	Preis	
MM-18280	Muhammed MacIntyre	Muhammed	MacIntyre	
TB-21400	Tom Boeckenhauer	Tom	Boeckenhauer	



TASK-3 Data Cleaning (Customer) | TASK-3 Data Cleaning (Product) | TASK-4 LOOKUF



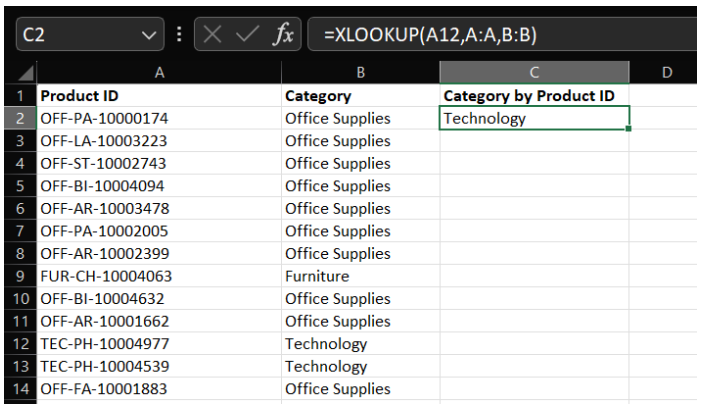
	A	B	C	D	E
1	Product ID	Product ID (Category)	Product ID (Sub Category)	Product ID(Number)	Product Name
2	OFF-PA-10000174	OFF	PA	10000174	Message Book, Wirebound, Four 5 1/2" X 4" Forms/Pg., 200 Dupl. Sets/Book
3	OFF-LA-10003223	OFF	LA	10003223	Avery 508
4	OFF-ST-10002743	OFF	ST	10002743	SAFCO Boltless Steel Shelving
5	OFF-BI-10004094	OFF	BI	10004094	GBC Standard Plastic Binding Systems Combs
6	OFF-AR-10003478	OFF	AR	10003478	Avery Hi-Liter EverBold Pen Style Fluorescent Highlighters, 4/Pack
7	OFF-PA-10002005	OFF	PA	10002005	Xerox 225
8	OFF-AR-10002399	OFF	AR	10002399	Dixon Prang Watercolor Pencils, 10-Color Set with Brush
9	FUR-CH-10004063	FUR	CH	10004063	Global Deluxe High-Back Manager's Chair
10	OFF-BI-10004632	OFF	BI	10004632	Ibico Hi-Tech Manual Binding System
11	OFF-AR-10001662	OFF	AR	10001662	Rogers Handheld Barrel Pencil Sharpener
12	TEC-PH-10004977	TEC	PH	10004977	GE 30524EE4
13	TEC-PH-10004539	TEC	PH	10004539	Wireless Extenders zBoost YX545 SOHO Signal Booster
14	OFF-FA-10001883	OFF	FA	10001883	Alliance Super-Size Bands, Assorted Sizes
15	OFF-PA-10000955	OFF	PA	10000955	Southworth 25% Cotton Granite Paper & Envelopes
16	FUR-FU-10004864	FUR	FU	10004864	Howard Miller 14-1/2" Diameter Chrome Round Wall Clock
17	OFF-BI-10003708	OFF	BI	10003708	Acco Four Pocket Poly Ring Binder with Label Holder, Smoke, 1"
18	OFF-AR-10004078	OFF	AR	10004078	Newell 312
19	TEC-AC-10001266	TEC	AC	10001266	Memorex Micro Travel Drive 8 GB
20	OFF-LA-10004272	OFF	LA	10004272	Avery 482
21	FUR-FU-10000965	FUR	FU	10000965	Howard Miller 11-1/2" Diameter Ridgewood Wall Clock
22	FUR-FU-10000010	FUR	FU	10000010	DAX Value U-Channel Document Frames, Easel Back
23	OFF-EN-10001990	OFF	EN	10001990	Staple envelope
24	OFF-EN-10001532	OFF	EN	10001532	Brown Kraft Recycled Envelopes
25	TEC-AC-10003174	TEC	AC	10003174	Plantronics S12 Corded Telephone Headset System
26	OFF-BI-10004187	OFF	BI	10004187	3-ring staple pack
27	OFF-ST-10000025	OFF	ST	10000025	Fellowes Stor/Drawer Steel Plus Storage Drawers
28	FUR-CH-10000422	FUR	CH	10000422	Global Highback Leather Tilter in Burgundy
29	OFF-ST-10000078	OFF	ST	10000078	Tennsco 6- and 18-Compartment Lockers
30	FUR-BO-10003034	FUR	BO	10003034	O'Sullivan Elevations Bookcase, Cherry Finish
31	OFF-AR-10003514	OFF	AR	10003514	4009 Highlighters by Sanford

TASK-3 Data Cleaning (Customer) | TASK-3 Data Cleaning (Product) | TASK-4 LOOKUF

❖ TASK-4 LOOKUP AND DATE FUNCTIONS:

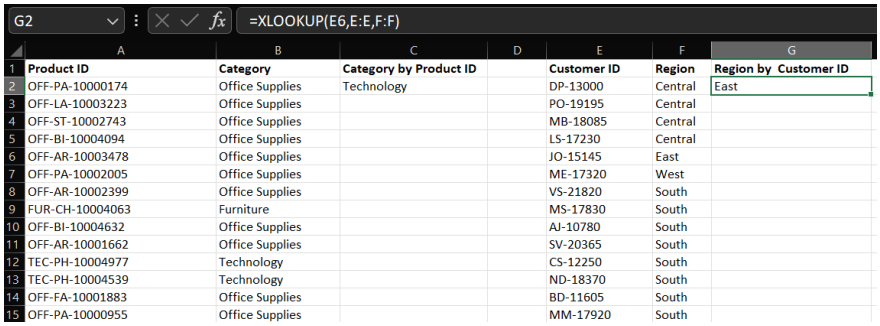
- LOOKUP:

  - XLOOKUP was chosen over VLOOKUP for both lookups (Category by Product ID and Region by Customer ID) because it offers greater flexibility and reliability in modern Excel.
  - Unlike VLOOKUP, which only searches from left to right and requires the lookup column to be first, XLOOKUP works in any direction without rearranging data.
  - XLOOKUP uses exact matches by default, handles errors gracefully with custom messages, and avoids VLOOKUP's column index issues that break formulas during edits.



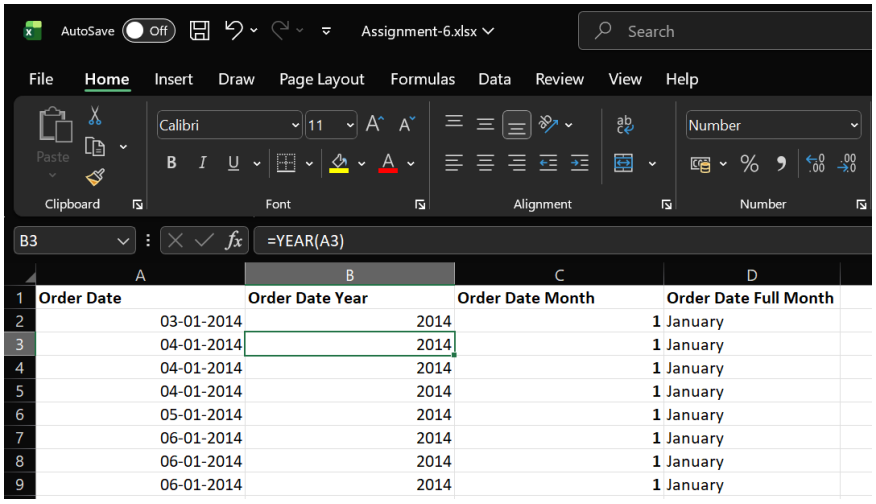
C2: =XLOOKUP(A12,A:A,B:B)

	A	B	C	D
1	Product ID	Category	Category by Product ID	
2	OFF-PA-10000174	Office Supplies	Technology	
3	OFF-LA-10003223	Office Supplies		
4	OFF-ST-10002743	Office Supplies		
5	OFF-BI-10004094	Office Supplies		
6	OFF-AR-10003478	Office Supplies		
7	OFF-PA-10002005	Office Supplies		
8	OFF-AR-10002399	Office Supplies		
9	FUR-CH-10004063	Furniture		
10	OFF-BI-10004632	Office Supplies		
11	OFF-AR-10001662	Office Supplies		
12	TEC-PH-10004977	Technology		
13	TEC-PH-10004539	Technology		
14	OFF-FA-10001883	Office Supplies		

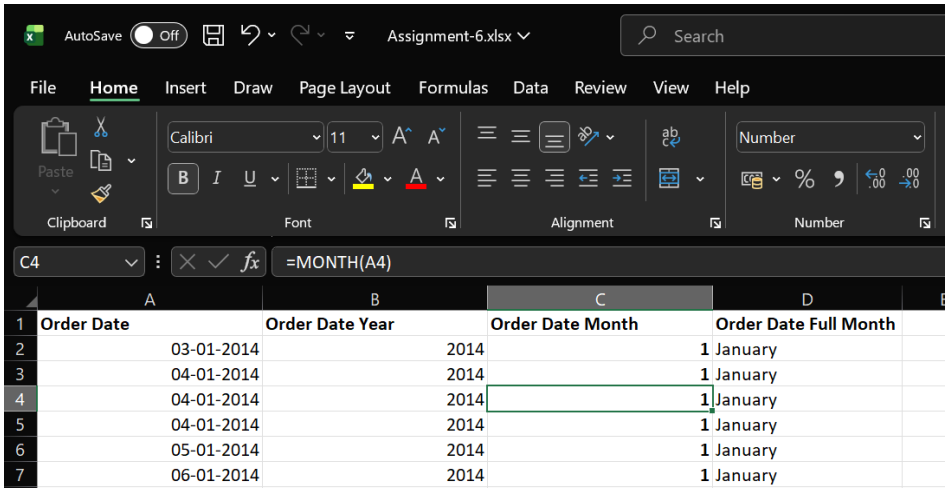


	Product ID	Category	Category by Product ID	Customer ID	Region	Region by Customer ID
2	OFF-PA-10000174	Office Supplies	Technology	DP-13000	Central	East
3	OFF-LA-10003223	Office Supplies		PO-19195	Central	
4	OFF-ST-10002743	Office Supplies		MB-18085	Central	
5	OFF-BI-10004094	Office Supplies		LS-17230	Central	
6	OFF-AR-10003478	Office Supplies		JO-15145	East	
7	OFF-PA-10002005	Office Supplies		ME-17320	West	
8	OFF-AR-10002399	Office Supplies		VS-21820	South	
9	FUR-CH-10004063	Furniture		MS-17830	South	
10	OFF-BI-10004632	Office Supplies		AJ-10780	South	
11	OFF-AR-10001662	Office Supplies		SV-20365	South	
12	TEC-PH-10004977	Technology		CS-12250	South	
13	TEC-PH-10004539	Technology		ND-18370	South	
14	OFF-FA-10001883	Office Supplies		BD-11605	South	
15	OFF-PA-10000955	Office Supplies		MM-17920	South	

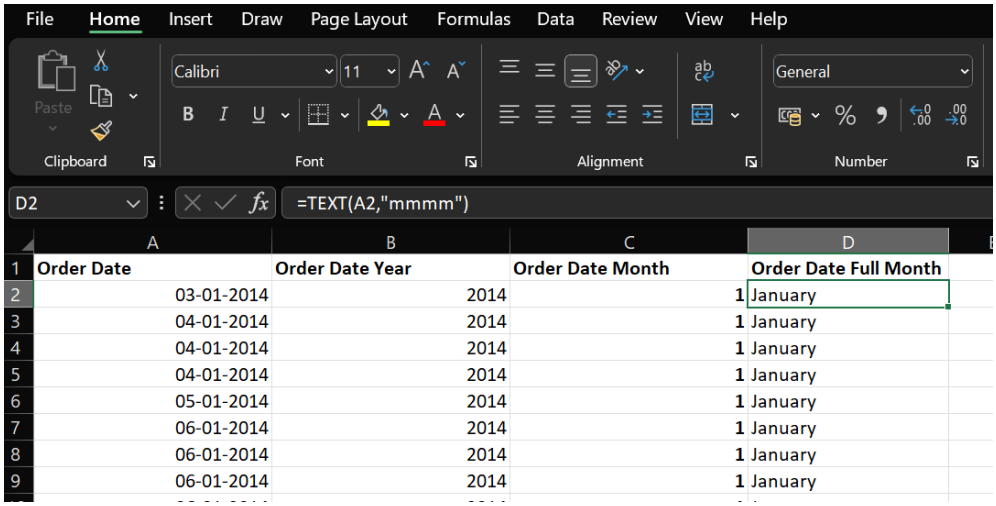
- <u>DATE FUNCTION:</u>
  - Extracted the Year from the Order Date by using the YEAR() function and changing the Format to “Number”.
  - Extracted the Month from the Order Date by using the MONTH() function and changing the Format to “Number”.Also used TEXT() function to extract full month.



	Order Date	Order Date Year	Order Date Month	Order Date Full Month
2	03-01-2014	2014	1	January
3	04-01-2014	2014	1	January
4	04-01-2014	2014	1	January
5	04-01-2014	2014	1	January
6	05-01-2014	2014	1	January
7	06-01-2014	2014	1	January
8	06-01-2014	2014	1	January
9	06-01-2014	2014	1	January

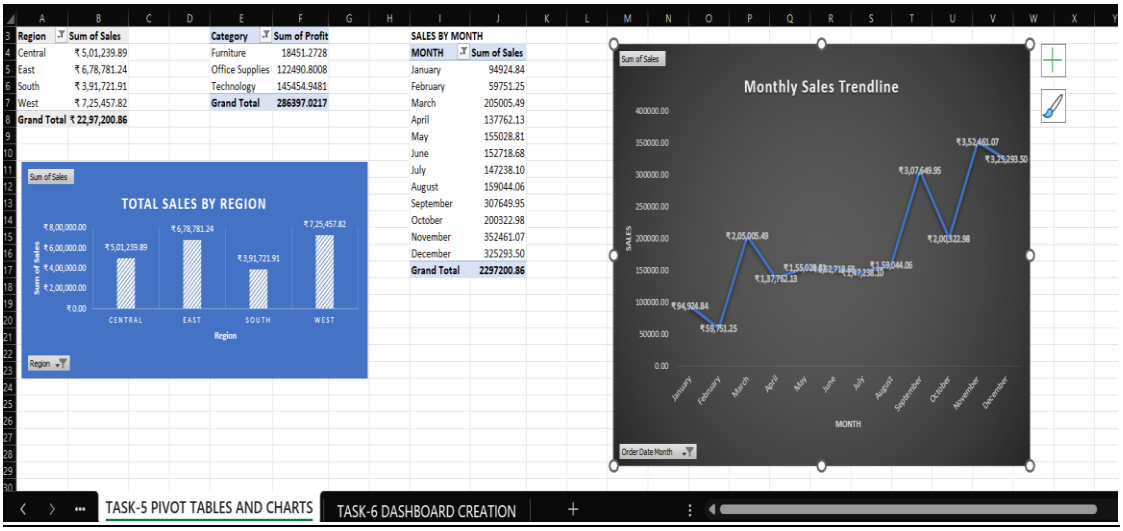


	Order Date	Order Date Year	Order Date Month	Order Date Full Month
2	03-01-2014	2014	1	January
3	04-01-2014	2014	1	January
4	04-01-2014	2014	1	January
5	04-01-2014	2014	1	January
6	05-01-2014	2014	1	January
7	06-01-2014	2014	1	January



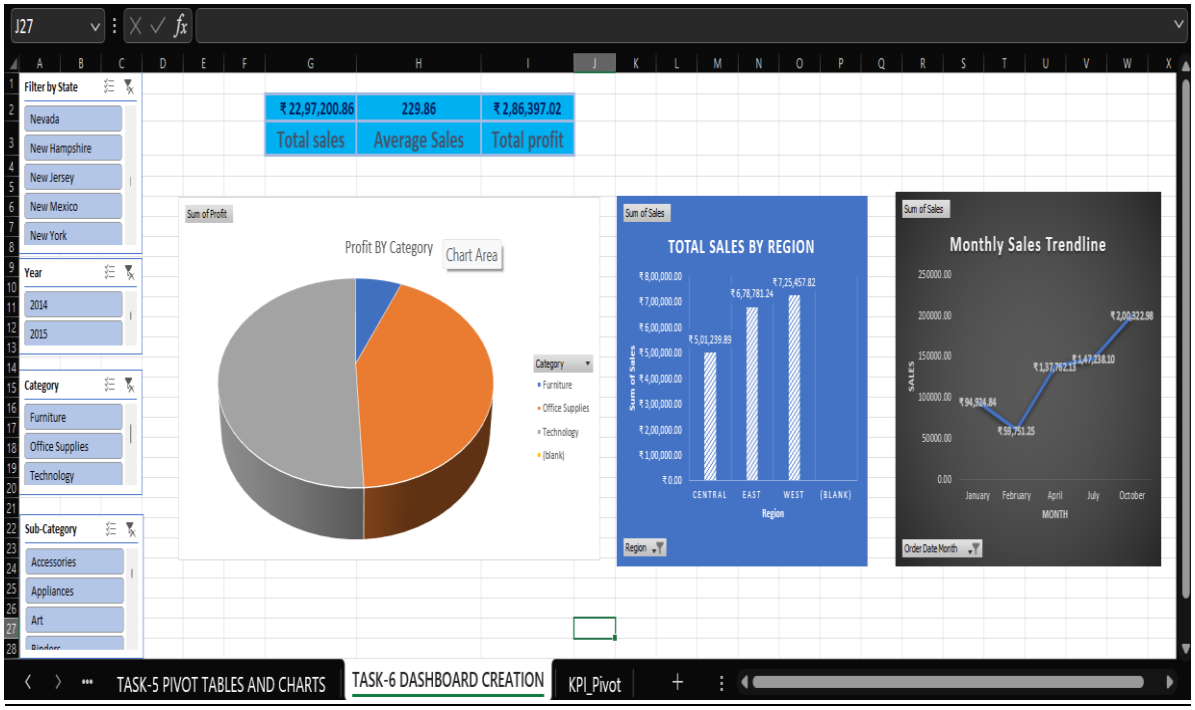
	A	B	C	D
1	Order Date	Order Date Year	Order Date Month	Order Date Full Month
2	03-01-2014	2014	1	January
3	04-01-2014	2014	1	January
4	04-01-2014	2014	1	January
5	04-01-2014	2014	1	January
6	05-01-2014	2014	1	January
7	06-01-2014	2014	1	January
8	06-01-2014	2014	1	January
9	06-01-2014	2014	1	January

❖ TASK-5 PIVOT TABLES AND CHARTS:



❖ TASK-6 DASHBOARD CREATION:

- Created a single Dashboard sheet that shows key charts, slicers, and KPI cards in a clean layout.
- Added Pivot Charts for Sales by Region, Profit by Category, and Monthly Sales Trend to visualize the data clearly.
- Inserted slicers (such as Region and Category) and connected them to all PivotTables so the charts and KPIs update when filters change.
- Designed KPI cards to display Total Sales, Total Profit, and Average Sales, making the main numbers easy to read.



❖ TASK 7: CONCEPTUAL QUESTIONS

- **Why is Excel still widely used in Data Analytics?**
    - Excel is widely used in data analytics because it allows users to prepare data for faster analysis without any coding. Beginners find it easy to learn and implement, thanks to its efficient user interface. In big companies, it enables quick insights and reporting.
    - Excel supports a wide range of formulas, charts, and dashboards. It's the foundational tool for advanced visualisation software like Power BI. If you master Excel, learning tools like Power BI become much easier. For smaller datasets, Excel remains the go-to tool for analysis.

- **What is the difference between COUNT() and COUNTA()?**
    - COUNT- Counts the number of cells in a range that contain numbers.
    - COUNTA- Counts the number of cells in a range that is not empty, including text and numbers.
- **What is a Pivot Table and why is it important?**
    - A Pivot Table is a powerful Excel tool that summarises large datasets. It groups data, calculates totals and averages, quickly uncovers insights, and creates reports—all without requiring manual formula writing.
    - Key Benefits of Pivot Table include Easy data summarisation, Automatic grouping, Interactive analysis, Ideal for dashboards, Fast processing, even for big data.

    - Pivot Tables form the foundation for tools like Power BI and Tableau.

- **What are slicers and how do they help in dashboards?**
    - Slicers are interactive buttons in dashboards, like those in Excel or Power BI, that let users filter data easily by clicking options. They connect to charts, tables, or PivotTables and show categories such as regions, dates, or products.
    - When you select an item in a slicer, it instantly updates all linked visuals to display only matching data. This makes dashboards more user-friendly than dropdown filters, as slicers visually show what's selected or cleared.
    - Slicers help spot trends quickly, like sales by region, without changing the underlying data. Multiple slicers can work together to facilitate deeper analysis, thereby improving decision-making in reports.

- **Why is data cleaning important before analysis?**
    - Data cleaning is essential before analysis. It removes inconsistencies and errors, such as missing values, incorrect data formats and types, and duplicates. This ensures the data is ready for identifying patterns and generating summaries.
    - Without proper cleaning, analysis can produce inaccurate insights, leading to poor decisions.